

AGENDA-RICH, AGENDA-POOR:
A CROSS-NATIONAL COMPARATIVE INVESTIGATION OF
NOMINAL AND THEMATIC PUBLIC AGENDA DIVERSITY

Jochen Peter and Claes H. de Vreese

ABSTRACT

This study is a cross-national comparative investigation of (1) similarities and differences between nominal and thematic public agenda diversity both within and between countries; (2) potential general predictors of the two types of agenda diversity; and (3) the relationship between the agenda diversity of television news and nominal and thematic public agenda diversity. Drawing on representative, identical surveys conducted at the same point of time in Denmark, France, Germany, the Netherlands, and the United Kingdom, we found that nominal agenda diversity was higher than thematic agenda diversity within the various countries. Between countries, both nominal and thematic agenda diversity varied considerably. Neither demographic variables nor media exposure and attention measures nor political interest turned out to be general predictors of the two types of agenda diversity in all of the countries. However, the number of television news outlets watched had a positive impact on both nominal and thematic agenda diversity in all countries except France. Linking content analysis of television news in each country to survey data, a positive relationship between news agenda diversity and public agenda diversity was found only for Denmark. Based on the findings, we suggest that the investigation of public agenda diversity should be rethought to enhance our understanding of public agenda diversity in particular and agenda-setting in general.

Traditionally, agenda-setting research has conceptualized the public agenda in terms of the importance people assign to a particular issue compared with other issues. More recent studies, however, have extended traditional conceptualizations of the public agenda and thereby tried to broaden our understanding of agenda-setting (Edelstein, 1993; Wanta, 1997). Wanta, King, and McCombs (1995), for example, suggest that the media might not only be stunningly successful in telling us *what*, but also *how many* issues to think about. In other words, the media might also shape what Allen and Izcaray

The authors would like to thank Cees van der Eijk, Uwe Hartung, Edmund Lauf, Klaus Schönbach, and two anonymous reviewers for helpful comments on an earlier version of this article. It was first submitted to *IJPOR* June 20, 2001. The final version was received December 4, 2001.

(1988) call nominal diversity . . . the number of issues a particular social unit considered salient' (p. 32).¹ If the media influence this more quantitative aspect of public agenda diversity, they might also have an impact on a more qualitative aspect of public agenda diversity, which can be referred to as *thematic* public agenda diversity. Thematic agenda diversity concerns the semantic variety of issues on the agenda of a particular social unit.² Even if different social units have the same nominal diversity (i.e. name the same number of issues), their thematic diversity may differ. For example, if, at the individual level, two respondents both mention two issues, but respondent A mentions inflation and prices, whereas respondent B mentions inflation and environment, then respondent B may be considered to show a broader thematic diversity.

The investigation of nominal and thematic public agenda diversity may potentially lead to an 'expanded portrait of the public agenda' (Wanta, 1997, p. 100) and a better understanding of the marketplace of ideas. Research to date, however, is scarce and suffers from three basic shortcomings, which are the starting point of this study. First, although research has dealt with the development of public agenda diversity over time (McCombs & Zhu, 1995; Reinemann & Brosius, 1998), nothing is known about public agenda diversity across space or countries, for that matter. Scholars have analyzed data from various countries (for Germany, Reinemann & Brosius, 1998; for Taiwan, Wanta et al., 1995; for the USA, e.g., McCombs & Zhu, 1995; for Venezuela, Allen & Izcaray, 1988); yet it is an open question whether, at the same point of time, the public agenda is, nominally and thematically speaking, equally diverse in different countries. Additionally, research has rarely investigated how nominal and thematic agenda diversity are related to each other; both a within-country and a cross-national comparative perspective is missing in this respect.

By using a cross-national comparative perspective, we also study the generality of both nominal and thematic agenda diversity, thus meeting one of the criteria which Dearing and Rogers (1996) identified as important to the future development of agenda-setting research: 'more research in a wider variety of countries' (p. 98). Dearing and Rogers' request refers to the argument that generalizations based on single-country data always entail the danger of 'naive universalism' (Gurevitch & Blumler, 1990, p. 308) and of ethnocentric bias. To be somewhat resistant against such dangers, comparative analysis is warranted (e.g. Dogan & Pelassy, 1990; Gurevitch & Blumler, 1990; Mackie & Marsh, 1995).

¹ It should be acknowledged that Allen and Izcaray (1988) refer to definitions given by Ferguson in her conference paper *Issue diversity and media: Nominal, attributive and field diversity as correlates of media exposure and diversity* presented at the 1984 annual meetings of the International Communication Association, ICA, San Francisco, CA.

² Our concept of thematic public agenda diversity is related to what Allen and Izcaray (1988) call 'attributive diversity . . . the variety or variance in evaluation about any particular issue or class of issues' (p. 32). However, we do not focus on evaluative aspects here.

A second shortcoming concerns the fact that previous research has not provided clear evidence whether there are general predictors of nominal and thematic agenda diversity. Only one study has investigated the antecedents of nominal agenda diversity in more than one country at the same time (Wanta et al., 1995). However, the two surveys conducted in the USA and Taiwan were not designed for comparative purposes because they were only 'similar' (Wanta et al., 1995, p. 354), but not identical or at least equivalent. Therefore, we conceptually replicate previous research on predictors of nominal and thematic agenda diversity in a cross-national comparative setting. Identifying a similar influence of any one predictor in different countries increases its explanatory power considerably and indicates its potential generality (Dogan & Pelassy, 1990; Gurevitch & Blumler, 1990).

Third, although researchers have employed media exposure measures (Allen & Izcaray, 1988; Chaffee & Wilson, 1977; Reinemann & Brosius, 1998; Wanta et al., 1995), no study to date has linked the diversity of the public agenda to the diversity of the media *content* individuals are actually exposed to.

LITERATURE REVIEW AND RESEARCH QUESTIONS

Because our first goal is to obtain a more encompassing notion of public agenda diversity, we investigate both nominal and thematic public agenda diversity from both a within-country and a between-country perspective. Given the lack of research on this specific subject, our first set of research questions is aimed at a descriptive account of public agenda diversity:

- RQ1a:* Does the average nominal agenda diversity differ from the average thematic agenda diversity within a particular country?
- RQ1b:* Does the average nominal/thematic agenda diversity differ between countries?

In trying to explain public agenda diversity, several variables have been investigated in previous studies. These variables generally fall into the categories of demographics, media use/attention, and political interest/civic engagement. In line with the second goal of this study, the conceptual replication of results from previous research, we briefly discuss the role played by these factors when dealing with the diversity on the public agenda. Given the exploratory nature of this study and the scarcity of previous research, we continue to formulate research questions rather than hypotheses. All research questions are addressed in a cross-national comparative fashion.

The first category of variables includes standard demographic indicators such as age, gender, and education. Wanta et al. (1995) have reported, for the USA, that age was positively related to nominal agenda diversity. However, for Taiwan, age was found to be negatively associated with nominal agenda diversity. The

better educated had a broader nominal agenda diversity in both the USA and Taiwan (Wanta et al., 1995). In a longitudinal study of both nominal and thematic agenda diversity in Germany, Reinemann and Brosius (1998) reported that education was a positive predictor for both types of agenda diversity in half of the surveys investigated. Education was also found to exert a positive influence on the individual issue capacity in McCombs and Zhu's (1995) longitudinal analysis of the public agenda in the USA. While these studies have not explicated any potential effects of gender, this variable should, as a standard demographic variable, not be omitted. We therefore formulated the following questions about the impact of individual characteristics on the nominal and thematic diversity of the public agenda:

- RQ2a:* Does nominal/thematic agenda diversity vary by age?
- RQ2b:* Is nominal/thematic agenda diversity positively affected by education?
- RQ2c:* Do women and men have similar degrees of nominal/thematic agenda diversity?

The second category of predictors concerns the use of media. Previous research suggests a positive relationship between the frequency of exposure to newspapers and television and the number of issues an individual is concerned with (Allen & Izcaray, 1988; Chaffee & Wilson, 1977; Reinemann & Brosius, 1998; Wanta et al., 1995). Obviously, the more frequently a person is exposed to media information, the more issues this person will be confronted with, and the more concerned this person will be with several issues (Wanta, 1997). Beyond the frequency of media exposure, scholars have also investigated whether the number of media outlets that people use affects agenda diversity. Wanta et al. (1995) and Chaffee and Wilson (1977) reported that respondents had higher nominal agenda diversity when they read several newspapers or when several newspapers were at least available to them. It is unclear, however, whether the same pattern also emerges for television news outlets.

In addition to media exposure and media use variables, we also included a measure of attention paid to different types of news. Drew and Weaver (1990) and McLeod and McDonald (1985) have argued that attention is an essential additional measure complementing the frequency of exposure and should therefore not be omitted from analyses. We ask the following questions regarding the effect of media exposure and news attention on agenda diversity:

- RQ3a:* Is nominal/thematic agenda diversity positively affected by more frequent exposure to newspapers?
- RQ3b:* Is nominal/thematic agenda diversity positively affected by more frequent exposure to television?
- RQ3c:* Is nominal/thematic agenda diversity positively affected by the use of several newspapers?

RQ3d: Does nominal/thematic agenda diversity vary by the use of several television news outlets?

RQ3e: Does nominal/thematic agenda diversity vary by attention to news?

The third category of variables refers to the impact of political interest or civic engagement on agenda diversity. Wanta et al. (1995) have suggested that ‘civic duty’, i.e. a feeling of responsibility to keep informed, is positively associated with a diverse nominal issue agenda. As can be concluded from Wanta et al.’s (1995, pp. 358 and 360) conceptualization and operationalization of civic duty, this measure is related to political interest, which has frequently been investigated in research on agenda-setting, albeit with mixed results. MacKuen and Coombs (1981), Schönbach and Semetko (1992), and Wanta (1997) found the politically more interested to be more susceptible to agenda-setting effects. However, McLeod, Becker, and Byrnes (1974) and Weaver, Graber, McCombs, and Eyal (1981) reported that the politically more interested were less susceptible to agenda-setting effects. Given these contradictory findings, our research question does not specify the direction of the relationship between political interest and agenda diversity:

RQ4: Does nominal/thematic agenda diversity vary by level of political interest?

As shown above, media use measures are commonly used in studies dealing with agenda diversity. However, no study to date has linked the diversity of the public agenda to the *diversity of the media agenda*, i.e., the diversity of the specific media content to which the public is actually exposed. We investigate the relationship between diversity on the news agenda and diversity on the public agenda by including a diversity measure of different television news programs. We use television for our media agenda measure because it is the most important source of information for the public in our five countries (Eurobarometer/European Commission, 1999). Although research on both agenda-setting and agenda diversity seeks to identify media *effects*, we do not specify the causal direction between television news agenda diversity and public agenda diversity because no study so far has demonstrated a clear causal direction between news agenda diversity and public agenda diversity.

RQ5: Does nominal/thematic public agenda diversity vary by diversity on the television news agenda?

METHOD

To investigate nominal and thematic agenda diversity cross-nationally we selected five countries: Denmark, France, Germany, the Netherlands, and the United Kingdom. We deliberately chose countries that are relatively similar in

their media and broadcasting systems, thereby opting for a ‘most similar design’. The media and broadcasting system in all five countries has stabilized in a phase of ‘dual broadcasting’ with strong—both privately and publicly funded—networks competing in the same national market (Siune & Hulten, 1998). Because little is known about the generality of nominal and thematic public agenda diversity, it would be risky to select dissimilar countries. Finding differences between countries in a most dissimilar design would render the results unintelligible due to the wide array of potential underlying reasons (Mackie & Marsh, 1995). Conversely, a most similar design reduces the number of potentially interacting variables. In the case of differences between the countries, a most similar design leaves the researcher with more confidence that such differences cannot be attributed to the characteristics in which the selected countries are most similar (Dogan & Pelassy, 1990), although it is somewhat inferior to a most dissimilar design in terms of the generalizability of results. As a consequence of those considerations and the scarce knowledge about nominal and thematic agenda diversity, a most similar design seems more appropriate for the purposes of this investigation.

Our study draws on five identical surveys carried out simultaneously in Denmark, France, Germany, the Netherlands, and the United Kingdom immediately after the June 1999 European Parliamentary Elections.³ The computer-assisted telephone interviews were conducted from June 14 to July 8, 1999, using a nationally representative random sample of people older than 18 years of age in each country. The sample size in each country was at least 1,000 respondents and response rates varied between 30 and 59 percent. Admittedly, these response rates are relatively low, but this does not necessarily bias the results as Keeter, Miller, Kohut, Groves, and Presser (2000) have demonstrated recently.⁴

To investigate the diversity of the media agenda, we drew on a content analysis of the most widely watched public broadcasting and private network news programs conducted for the two weeks immediately preceding the European Election day. In each of the countries, each news story (defined as a semantic entity with at least one topic delimited from another story by a change of topic)

³ The surveys are part of the 1999 European Election Study (EES). The EES is funded by grants from the University of Amsterdam, the Netherlands, the Dutch National Science Foundation (NWO), the German Federal Press and Information Agency, the CIS (Spain), the University of Mannheim, Germany, and Trinity College, Dublin, Ireland. Fieldwork was carried out by a consortium of European survey organizations directed by IPSOS, Germany. Neither the original collectors of the data nor their sponsors bear any responsibility for the analyses or interpretations published here.

⁴ The sample sizes and response rates were: Denmark $n=1,014$, 59 percent response rate; France $n=1,021$, 30 percent; Germany $n=1,000$, 49 percent; the Netherlands $n=1,001$, 30 percent; United Kingdom $n=1,008$, 49 percent. Moreover, it should be taken into account that the computation of the response rates is based on a very conservative definition of the net sample, which includes the relatively high number of losses of respondents who could not be contacted *at all*. The fact that no contact at all was made with the person to be interviewed might, however, also indicate corporate lines, fax numbers etc., i.e. quality-neutral losses. A less conservative definition of the net sample would have resulted in higher response rates.

of the main evening news program was analyzed.⁵ The stories as units of analysis were coded by native speakers who had been trained several weeks before coding and supervised throughout the whole coding period.

MEASURES OF AGENDA DIVERSITY

Nominal public agenda diversity was measured as the number of answers a respondent gave to the Most Important Problem (MIP) question, which is the most widely used index of the public agenda. Each respondent was probed to mention more problems, up to a maximum of six.⁶ As a result, nominal public agenda diversity could vary between values of 1 to 6. All responses were coded and categorized into 12 issue categories largely taken from McCombs and Zhu (1995).⁷ The categories were: 'Jobs/Unemployment', 'Welfare', 'Money', 'Public spending', 'Law and order', 'Government/political decision making', 'Social relations', 'Environment/Food', 'Technology/Research', 'EU-related problems', 'Foreign policy/affairs', 'Miscellaneous'. The residual category 'Miscellaneous' was excluded from further analysis because the respective responses usually did not refer to national problems.

We also excluded those respondents from the analysis who did not know an answer to the MIP question or did not answer the question. This is an acknowledgment of the fact that 'don't know' answers and nonresponses cannot validly be interpreted as indicating no agenda diversity at all, but might be attributed to other reasons as well. Another reason for excluding these respondents is that 'don't know' answers are especially susceptible to house effects (Smith, 1978, 1982), i.e., response differences caused by the fact that different survey organizations ('houses') conduct interviewer training and field supervision differently. For the five countries, the final sample size varied between 835 and 978 respondents (for further details see the Appendix).

Thematic public agenda diversity was operationalized as the number of answers from *different* categories (see above). That is, multiple issues from the same issue category were considered not to contribute to thematic public agenda

⁵ For Denmark the two news bulletins were DR's *TV-Avisen* (public) and *TV2 Nyhederne* (public-private), for France TF1's *Le Journal* (private) and F2's *Le Journal* (public), for Germany ARD's *Tagesschau* (public) and RTL's *RTL Aktuell* (private), for the Netherlands NOS's *8 uur Journaal* (public), and RTL4's *RTL4 Nieuws* (private), and for the United Kingdom BBC's *9 o'clock News* (public) and ITN's *Evening news at 6:30* (private). Due to technical problems, the following bulletins are missing: *TV Avisen* May, 29; *Nyhederne* May, 27 and 31; *8 uur Journal* May, 27 and June, 1; *RTL4 Nieuws* June, 1; *BBC 9 o'clock news* May, 28 and 29.

⁶ The question read: 'What do you think are the most important problems facing <name of the country>. Any other important problems?'

⁷ The coding was done by the same coders who had been employed in the news content analysis. Since the topic list used in the content analysis was identical to the one used for coding the answers to the MIP question, the inter-coder reliabilities for the topic coding in the content analysis also tell us the reliability of the coding of the answers to the MIP questions. Inter-coder reliabilities measured as average percentage of pairwise agreement ranged between 85 percent (the Netherlands) and 93 percent (Germany).

diversity, and were consequently counted as '1'. Thematic public agenda diversity could vary between values of 1 to 6.

INDEPENDENT VARIABLES

Measures of age and gender were straightforward (the most important parameters of these and the following variables are documented for all five countries in the Appendix); the comparative measuring of education, however, presented a problem since the educational systems in the five countries are dissimilar. To ensure comparability, it was asked how old respondents were when they stopped full-time education. For respondents who had not completed their education yet, their age at the time of the interview was coded. In order to avoid a distortion of the education measure by people who had extended their studies beyond the usual, the maximum age at which people stopped full-time education was set at 26. This is by and large the age at which the majority of students in the five countries had gained a university degree.

Exposure to television and newspapers was operationalized by asking people '(Normally), how many days of the week do you watch television/read a newspaper?' The number of news outlets/newspapers a respondent watches /reads was computed as the sum of news outlets/newspapers a respondents mentioned in response to the open-ended question 'Which channels or television news programs [newspaper or newspapers] do you watch [read] regularly?' We created a news attention index from four items tapping people's attention to news about politics, the economy, social problems, and Europe.⁸ The internal consistency of this index varied in the five countries from Cronbach's $\alpha = .48$ (Netherlands) to $.75$ (Denmark and France) (see the Appendix for further information). Political interest was assessed by asking 'To what extent would you say you are interested in politics?' The anchors of the response categories were 1 (*very*) and 4 (*not at all*), which were inversely coded.

To assess the agenda diversity of each of the news programs, we employed the topic category of the content analysis. The inter-coder reliability (i.e. the average percentage of pairwise agreement) for this category varied in the five countries between 85 percent in the Netherlands and 93 percent in Germany. The topics of the news stories were categorized in the same 12 issue categories used for the nominal and thematic agenda diversity (see above). Similar to the analysis of public agenda diversity, 'Miscellaneous' was dropped from the analysis, resulting in 11 issue categories.

In order to compute the agenda diversity for each of the television news programs, we chose the entropy measure (*H*-statistic) developed by Shannon

⁸ The exact wording of the questions was, 'How much attention do you pay to news about politics/the economy/social problems/Europe? A lot, some, a little, or none?' All items were measured on a 4-point scale ranging from 1 (*a lot*) to 4 (*none*) which were inversely coded.

and Weaver (1949). This measure is often used in research on diversity and has been employed in other studies of agenda diversity as well (Chaffee & Wilson, 1977; McCombs & Zhu, 1995). As suggested by van Cuilenburg (2000, p. 64) and McCombs and Zhu (1995, p. 503), we used a standardized measure so that the values range between zero and 1 where zero indicates homogeneity and 1 maximum diversity:

$$D(\text{iversity}) = \frac{-\left(\sum_{i=1}^n p_i (\log_2 p_i)\right)}{(\log_2 k)} \quad (1)$$

where \log_2 is the logarithm with base 2, $k = 11$ (constant number of issue categories for all news programs), and n the number of categories with a value greater zero,⁹ and

$$p_i = \frac{\text{Length}_i}{\sum_{i=1}^n \text{Length}_i} \quad (2)$$

As can be seen in formula (1), the more even the distribution across the issue categories is, the greater the diversity becomes. For example, if all issue categories receive the exact amount of coverage in terms of length within a news program, then p_i has the same value for each i th issue category and consequently D will be 1, indicating maximum issue diversity. Because the news programs differ considerably in length (e.g., the German *Tagesschau* 15 min and the French *Le Journal* 45 min), we based our computation on the overall length of the coverage of a particular issue category during the period of investigation rather than on the overall number of stories. As formula (2) shows, we computed for each of the issue categories their proportional share in the entire coverage of a particular news program. The diversity scores for each news program are documented in the Appendix.

RESULTS

NOMINAL AND THEMATIC AGENDA DIVERSITY WITHIN AND BETWEEN COUNTRIES

Our first set of research questions addressed respondents' average nominal and thematic agenda diversity within and between the countries. To check whether nominal and thematic agenda diversity differ within a particular country, we

⁹ As to the denominator, we did not replace the fixed number of categories with the number of issue categories with a value greater than zero because this would have led to an overestimation of the resulting diversity score.

TABLE 1 Average nominal and thematic public agenda diversity across countries

| | <i>Nominal diversity</i> | | <i>Thematic diversity</i> | |
|----------------------------|--------------------------|--------|---------------------------|-------|
| | M | SD | M | SD |
| Denmark ($n=835$) | 1.73 _{A,y} | (.96) | 1.48 _{B,w,x} | (.70) |
| France ($n=960$) | 1.79 _{A,y} | (.94) | 1.69 _{B,y} | (.83) |
| Germany ($n=978$) | 2.14 _{A,z} | (1.00) | 2.05 _{B,z} | (.90) |
| Netherlands ($n=835$) | 1.77 _{A,y} | (.98) | 1.59 _{B,x,y} | (.82) |
| United Kingdom ($n=845$) | 1.43 _{A,x} | (.76) | 1.38 _{B,w} | (.67) |

Note: The one-way analyses of variance and the t -tests are based on all respondents that gave at least one answer to the MIP question. Means in rows lacking a shared uppercase subscript differed at $p < .001$ (paired t -test). Means in columns lacking a shared lowercase subscript differed at least at $p < .05$ (Scheffé post-hoc tests). For example, Germany differed significantly from Denmark, France, the Netherlands, and the United Kingdom in terms of the nominal agenda diversity.

performed t -tests. As can be seen in Table 1, the average nominal agenda diversity was significantly higher than thematic agenda diversity in all countries. The average number of problems mentioned was low—generally less than two, except in Germany. Analyses of variance were performed to see whether there was an inter-country difference concerning nominal and thematic agenda diversity. As Table 1 shows, there was a clear difference between the countries, both for nominal ($F(4, 4448) = 67.25, p < .001$) and thematic diversity ($F(4, 4448) = 97.25, p < .001$). With respect to nominal agenda diversity, Scheffé post-hoc tests revealed that German respondents gave significantly more answers than respondents from any other country. British respondents gave the lowest number of answers, which was different from respondents in the four remaining countries. Respondents from Denmark, France, and the Netherlands did not differ from one another, but from respondents in Germany and the UK.

A similar picture emerged with respect to thematic diversity. Again, German respondents gave the most answers from different issue categories. British respondents' thematic diversity was the lowest, along with the Danish respondents' one. However, whereas the British respondents differed significantly from the Dutch, the Danish did not. In contrast to the Dutch, the Danes' thematic diversity was different from the thematic diversity of the French.

EFFECTS OF DEMOGRAPHICS, MEDIA USE, AND POLITICAL INTEREST

To investigate the influence of the various predictors, OLS regressions were performed separately for each of the five countries. Our second block of research questions addressed the influence of gender, age, and education on the two types of agenda diversity. As can be seen in Table 2, none of the demographics proved to be a universally significant predictor in all of the countries. However,

for both nominal and thematic agenda diversity, the direction of the effects was consistently in the same direction. Women tended to give more answers than men in Denmark, the Netherlands, and the UK. They also showed more thematic variety in their answers, at least in the Netherlands and the UK. The number of answers was higher among younger respondents and so was the thematic diversity of answers (yet both times significant only in Denmark and in the UK). Education exerted a positive influence on both nominal (significant in Germany and in the Netherlands) and thematic agenda diversity (significant in Denmark and the Netherlands).

As far as our research questions on the frequency of media exposure are concerned, we found the impact of newspaper and television exposure to be, by and large, consistent in its direction, though the majority of these influences did not reach conventional significance levels (Table 2). Although in most of the countries both nominal and thematic agenda diversity increased with more frequent newspaper reading, this impact was significant only in Denmark. If the frequency of exposure to television had an impact on nominal and thematic diversity, then it was in a negative direction, albeit significant only in Germany and the UK. Except for the UK, the number of different newspapers people read did not influence nominal or thematic agenda diversity. However, for all countries except France we found that both nominal and thematic agenda diversity increased with the number of TV news outlets watched. The more news outlets people watched, the more problems they mentioned and the more these problems varied thematically. Only in France did it appear that a greater attention to political news contributed to higher nominal and thematic agenda diversity. The impact of political interest on both nominal and thematic agenda diversity was significant in Germany and the Netherlands. Overall, none of the predictors had a statistically significant impact on nominal or thematic agenda diversity in *all* of the countries, yet the number of TV outlets people used proved to be a good predictor of both nominal and thematic agenda diversity in four of the five countries. Taken together, however, in none of the countries did the predictors explain more than 7 percent of the variance.

THE RELATIONSHIP BETWEEN TV NEWS AND PUBLIC AGENDA DIVERSITY

The third purpose of our study was to relate an individual's nominal and thematic agenda diversity to the diversity of the television news content he or she was actually exposed to. In order to make the link between an individual's agenda diversity and the agenda diversity of television news as tight as possible, we included in our analyses only those respondents who regularly, but exclusively watch one or both of the TV programs content analyzed (for the UK, for example, those who regularly, but exclusively watch the BBC *9 O'Clock News*

TABLE 2 Predictors of nominal and thematic public agenda diversity across countries

| | Nominal agenda diversity | | | | | Thematic agenda diversity | | | | |
|--------------------------------|--------------------------|---------------------|----------------------|--------------------------|-------------------|---------------------------|---------------------|----------------------|--------------------------|-------------------|
| | Denmark (n = 672) | France (n = 588) | Germany (n = 863) | Netherlands (n = 699) | UK (n = 621) | Denmark (n = 672) | France (n = 588) | Germany (n = 863) | Netherlands (n = 699) | UK (n = 621) |
| Female | .217** (.077) | | | .219** (.079) | .132* (.063) | | | | .197** (.066) | .118* (.055) |
| Age | -.006* (.003) | | | | -.006** (.002) | | | | | -.005** (.002) |
| Education | | | .015# (.009) | .038** (.012) | | | | | .034** (.010) | |
| NP exposure | .040* (.017) | | | | | | | | | |
| TV exposure | | | -.068** (.020) | | -.033* (.016) | | | | | -.028# (.014) |
| Number of newspapers read | | | | | .172*** (.049) | | | | | .138** (.043) |
| Number of TV news outlets used | .090** (.034) | | .109* (.043) | .123*** (.034) | .089* (.035) | .046# (.025) | .100** (.038) | .103*** (.028) | .068* (.031) | |
| Attention to news | | .179* (.082) | | | | | | .185** (.070) | | |
| Political Interest | | | .142* (.064) | .138* (.063) | | | | .126* (.057) | .140** (.053) | |
| Adj. R ² | .04*** | .004 | .02** | .07*** | .05*** | .03** | .02** | .06*** | .05*** | |

Note: # $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. Coefficients reported are unstandardized multiple linear regression coefficients (b). Standard errors are indicated in brackets. For presentational reasons, coefficients above $p = .10$ are not reported.

TABLE 3 The relationship between TV news agenda diversity and nominal and thematic public agenda diversity

| | <i>Nominal diversity</i> | <i>Thematic diversity</i> |
|------------------------------|--------------------------|---------------------------|
| Denmark ($n = 159$) | .14 [#] | .15 [#] |
| France ($n = 198$) | -.02 | -.04 |
| Germany ($n = 257$) | -.09 | -.09 |
| Netherlands ($n = 141$) | .03 | -.03 |
| United Kingdom ($n = 191$) | .03 | .02 |

$p < .10$

Note: Cell entries are eighth-order partial correlations, controlled for age, education, gender, TV exposure, newspaper exposure, number of newspapers read, attention to political news, and political interest. The analysis is based on those respondents who regularly and exclusively watch one or both of the news programs included in the news content analysis.

or the *ITN Evening News* at 6:30, or both). This, of course, reduced our sample size. Because we focus on the relationship between television and public agenda diversity without specifying causal directions, we computed eighth-order partial correlations with the demographics, TV and newspaper exposure, number of newspapers read, attention to political news, and political interest as control variables.

As Table 3 shows, the diversity of the television news agenda was related to a higher nominal and thematic public agenda diversity only in Denmark. For the UK and the Netherlands (nominal diversity), the effect of television news diversity was also positive, yet not statistically significant. For Germany, France, and the Netherlands (thematic diversity), we found a weak, but not significant negative effect of television news diversity.

DISCUSSION

By taking a cross-nationally comparative perspective on both nominal and thematic public agenda diversity, this study offers some initial insights into the generality of agenda diversity. Our findings showed that nominal diversity was higher than thematic agenda diversity in all countries. This finding could be expected because, by definition, thematic diversity cannot exceed nominal diversity. It seems more interesting to point out that, except in Germany, respondents on average mentioned less than two problems. This finding raises the question whether the two types of agenda diversity can appropriately be operationalized with the commonly used measures and analytic procedures (i.e. with the mostly open-ended 'Most important problem' question and with the subsequent categorization of the answers). More specifically, future research should aim at clarifying the issue as to what extent the commonly used 'Most important problem' question with its singular bias is an appropriate measure

for agenda *diversity*. Furthermore, as is the case for most agenda-setting studies, the categorization of problems into broader categories may influence the variety of an agenda and, thereby, to some extent put an arbitrary spin on agenda-setting research. In order to make our study as comparable as possible to previous research on agenda diversity, we drew upon a category system used by McCombs and Zhu (1995) for nominal agenda diversity and applied it, as an initial attempt, to thematic diversity as well. Nevertheless, it seems necessary to develop more refined measures for the analysis of the relation between nominal and thematic agenda diversity.

Our results show that nominal and thematic public agenda diversity were different across countries. This implies that one should be cautious about assuming that the structure and scope of the public agenda are universal. Respondents in different countries gave a different number of answers when asked about the most important problems facing the country and, consequently, displayed different degrees of thematic diversity. A cautionary note, however, seems warranted here. Although we excluded the ‘don’t know’ answers and nonresponses to minimize potential house effects as suggested by Smith (1978, 1982), the differences might still be a result of the fieldwork not being sufficiently standardized across the five countries. However: as the European Election Survey was centrally coordinated and organized by one research institute (Ipsos, Germany) and carried out with an identical questionnaire under identical conditions (random sample, CATI, one central telephone studio, supervision of no more than 12 interviewers by one supervisor),¹⁰ the probability of an effect of fieldwork seems rather low. In Denmark, respondents were re-interviewed to check the relatively high refusal rate concerning the MIP question (and, still, more than 15 percent of the Danes did not mention a single problem). Nevertheless, future research should pay attention to the potential susceptibility of agenda-setting in general and agenda diversity in particular to house effects—an aspect that, to our knowledge, has not been discussed so far in the literature.

The cross-national investigation of predictors of nominal and thematic agenda public diversity did not yield clear-cut results. Although the direction of the effects was largely consistent in all countries for both nominal and thematic diversity, the majority of the effects did not reach statistical significance. Apart from that, the explained variance was low. Therefore, we conclude that the investigated predictors present neither really powerful nor general explanations of nominal and thematic diversity. This is not to say that those predictors should be omitted from future analyses, but rather that they be supplemented by potentially more meaningful ones.

¹⁰ This does not apply to the Netherlands. The survey was conducted in two telephone studios with a supervisor-interviewer ratio of 1:25.

The low explanatory power of demographics in our study is in line with an investigation by Zhu and Boroson (1997), who pointed out that demographics generally play a minor role in agenda-setting. However, where significant, our findings for the impact of demographics support earlier research on agenda diversity. The positive impact of education on nominal and thematic diversity confirms results by McCombs and Zhu (1995), Reinemann and Brosius (1998) and Wanta et al. (1995). The fact that, in two of the five countries, younger people had a broader nominal and thematic agenda diversity dovetails with what Wanta et al. (1995) reported for Taiwan. Moreover, we found that women have to some extent a broader nominal and thematic agenda diversity. Research to date has not reported such gender effects. Our consistent effects for gender suggest that it should be investigated in more detail in further analyses.

In contrast to research that has pointed out that higher exposure to media leads to a more pronounced nominal diversity (Allen & Izcaray, 1988; Chaffee & Wilson, 1977; Reinemann & Brosius, 1998; Wanta et al., 1995), we found only weak impact of exposure to newspapers or television on nominal and thematic diversity. What is more, if there was any impact of television exposure, it was in a negative direction. With respect to attention to news, only French respondents had a higher nominal and thematic agenda diversity when being more attentive to news. The relatively low predictive power of the media exposure and attention measures may also be seen in light of the fact that the number and diversity of answers given is based on a recall process. As Price and Zaller (1993) have shown in a seminal study, the impact of media exposure measures on recall is outperformed by political knowledge, a predictor we were not able to include. Other studies have also confirmed the superiority of knowledge to media measures in explaining a variety of cognitive processes (e.g. Fiske, Lau, & Smith, 1990; Krosnick & Milburn, 1990; Zaller 1990).

Accepting that nominal and thematic agenda diversity are based on cognitive processes, future research might consider integrating knowledge measures and other cognitive capacity measures as predictors of nominal and thematic agenda diversity. Fiske et al. (1990), Krosnick and Milburn (1990), and Zaller (1990) also show that knowledge is a more powerful predictor of cognitive processes than political interest. Although political interest has been found to have an important effect on agenda-setting (e.g. Schönbach & Semetko, 1992), our findings suggest that it is neither a key variable nor a completely negligible factor.

In line with earlier studies (Chaffee & Wilson, 1977; Wanta et al., 1995), we found that respondents gave more and thematically more diverse answers when using several media. Whereas, however, Chaffee and Wilson (1977) and Wanta et al. (1995) reported this effect for the use of several newspapers, we obtained this impact predominantly for the use of multiple TV news outlets, which was true for all countries except France. Apparently, the consumption of a variety

of TV news outlets relates more strongly to issue diversity than the frequency of exposure. Citizens receive a more encompassing notion of pressing problems when watching various news outlets. Our data do not permit an analysis of the extent to which the number of news outlets watched moderates the influence of the frequency of exposure. Future research, however, should investigate this possibility.

Our investigation is the first to link an individual's nominal and thematic agenda diversity to the diversity of the news *content* to which the individual is actually exposed. Except for Denmark, we found no significant relationship between the diversity of the television news agenda and individuals' agenda diversity. It could be argued that our sample of those people who exclusively watched one or both of the news programs analyzed was too limited (especially given the finding that the number of news outlets watched turned out to be strongly related to agenda diversity). The investigation of only two news programs over a period of two weeks moreover runs the risk that the programs might not differ so much in their agenda diversity. In addition, content analyzing only two weeks prior to measuring public agenda diversity may not provide us with sufficient information about the diversity of the media agenda and may consequently impede the detection of a relationship between media and public agenda diversity. Consequently, in order to test the relationship between television and public agenda diversity in a more encompassing fashion, a wider array of news programs and newspapers which respondents actually watch and read should be content analyzed for a more extended period of investigation.

The weak relationship between the content diversity of specific TV news outlets and an individual's agenda diversity may have important theoretical and methodological implications when considered in conjunction with our result that an individual's agenda diversity increased if he or she watched several news outlets. Theoretically, our findings imply that the (cumulative) content diversity of television news as a whole is more important to an individual's agenda diversity than the content diversity of a particular TV news outlet. This suggests that the (external) diversity of all television news outlets taken together shapes individual agenda diversity rather than the (internal) diversity of a particular outlet (for the distinction between external and internal diversity see, e.g., McQuail, 1992). Methodologically, our findings imply that for a compelling test of the differential impact of external and internal diversity the content diversity of all news outlets used has to be analyzed and linked to a viewer's agenda diversity. We were not able to include the content diversity of more than two news outlets per country, which presumably does not represent the external content diversity of a country's news outlets appropriately. However, we would predict that the effects of external diversity will also occur in a content-based analysis if the external content diversity is adequately represented. To additionally support such analyses, more cross-national research may be

helpful. Our considerations suggest that in countries with limited external agenda diversity the public agenda is less diverse than in countries with high external agenda diversity.

In conclusion, our study suggests that the desired 'expanded portrait of the public agenda' (Wanta, 1997, p. 100) rather resembles a thumbnail sketch. To obtain a more colorful painting of public agenda diversity and its underlying influences, we need to explain inter-country differences more thoroughly, identify more general predictors and disentangle the impact of the agenda diversity of various media. We believe, however, that the rethinking of how to investigate public agenda diversity may enhance our understanding not only of the public agenda, but also agenda-setting in general.

APPENDIX: BASIC PARAMETERS OF THE SURVEY AND THE CONTENT ANALYSIS

SURVEY PARAMETERS

| | | <i>Denmark</i> | <i>France</i> | <i>Germany</i> | <i>Nether-lands</i> | <i>UK</i> |
|-----------------------------------|--------------|----------------|----------------|----------------|---------------------|----------------|
| | | <i>(n=835)</i> | <i>(n=960)</i> | <i>(n=978)</i> | <i>(n=835)</i> | <i>(n=845)</i> |
| Gender | Percent male | 50 | 49 | 47 | 48 | 48 |
| Age | <i>n</i> | 421 | 470 | 459 | 399 | 409 |
| | <i>M</i> | 47.2 | 46.2 | 46.4 | 46.3 | 45 |
| | <i>SD</i> | 16.2 | 16.2 | 17.1 | 15.3 | 15.5 |
| Education | <i>n</i> | 835 | 960 | 978 | 835 | 831 |
| | <i>M</i> | 22.0 | 19.6 | 19.2 | 20.5 | 17.8 |
| | <i>SD</i> | 3.7 | 3.7 | 4.0 | 3.6 | 3.2 |
| TV exposure | <i>n</i> | 776 | 924 | 954 | 811 | 830 |
| | <i>M</i> | 5.3 | 5.1 | 5.5 | 5.9 | 5.5 |
| | <i>SD</i> | 2.2 | 2.4 | 2.1 | 1.9 | 2.1 |
| Newspaper exposure | <i>n</i> | 832 | 944 | 978 | 834 | 832 |
| | <i>M</i> | 4.7 | 3.4 | 4.9 | 5.0 | 4.3 |
| | <i>SD</i> | 2.8 | 2.8 | 2.4 | 2.3 | 2.9 |
| Number of newspapers read | <i>n</i> | 822 | 910 | 974 | 833 | 820 |
| | <i>M</i> | 1.3 | 1.0 | 1.0 | 1.3 | 1.1 |
| | <i>SD</i> | 0.9 | 0.9 | 0.6 | 0.8 | 0.7 |
| Number of TV news outlets watched | <i>n</i> | 835 | 960 | 978 | 835 | 845 |
| | <i>M</i> | 2.2 | 1.9 | 1.6 | 2.1 | 1.5 |
| | <i>SD</i> | 1.2 | 1.2 | 0.8 | 1.1 | 0.8 |
| News attention | <i>n</i> | 768 | 860 | 942 | 804 | 770 |
| | <i>M</i> | 2.9 | 3.0 | 3.1 | 2.7 | 3.1 |
| | <i>SD</i> | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 |
| Political interest | <i>n</i> | 735 | 652 | 885 | 721 | 662 |
| | α | .75 | .75 | .52 | .48 | .66 |
| | <i>M</i> | 2.9 | 2.5 | 2.9 | 2.6 | 2.6 |
| | <i>SD</i> | 0.8 | 0.9 | 0.8 | 0.8 | 0.9 |
| | <i>n</i> | 834 | 951 | 978 | 834 | 843 |

CONTENT ANALYSIS PARAMETERS

| | <i>Denmark</i> (29,809 sec) | <i>France</i> (56,079 sec) | <i>Germany</i> (18,507 sec) | <i>Netherlands</i> (22,872 sec) | <i>UK</i> (25,249 sec) |
|--|--------------------------------|-------------------------------|--------------------------------|------------------------------------|---------------------------|
| Content diversity public network | .79 | .64 | .69 | .69 | .60 |
| Content diversity private network | .71 | .64 | .68 | .73 | .69 |
| Content diversity public and private network | .76 | .65 | .72 | .72 | .64 |

REFERENCES

- Allen, R. L., & Izcaray, F. (1988). Nominal agenda diversity in a media-rich, less-developed society. *Communication Research*, 15, 29–50.
- Chaffee, S. H., & Wilson, D. G. (1977). Media rich, media poor: Two studies of diversity in agenda-holding. *Journalism Quarterly*, 54, 466–476.
- Cuilenburg, J. van. (2000). On measuring media competition and media diversity: Concepts, theories and methods. In R. G. Picard (Ed.), *Measuring media content, quality, and diversity: Approaches and issues in content research* (pp. 51–84), Turku, Finland: Turku School of Economics and Business Administration.
- Dearing, J. W., & Rogers, E. M. (1996). *Agenda-setting*. Thousand Oaks, CA: Sage.
- Dogan, M., & Pelassy, D. (1990). *How to compare nations: Strategies in comparative politics* (2nd ed.). Chatham, NJ: Chatham House.
- Drew, D., & Weaver, D. (1990). Media attention, media exposure, and media effects. *Journalism Quarterly*, 67, 740–748.
- Edelstein, A. S. (1993). Thinking about the criterion variable in agenda-setting research. *Journal of Communication*, 42(2), 85–99.
- Eurobarometer/European Commission (1999). *Eurobarometer: Public opinion in the European Union*. (Rep. No. 51). Brussels, Belgium: Directorate-General X.
- Fiske, S. T., Lau, R. M., & Smith, R. A. (1990). On the varieties and utilities of political expertise. *Social Cognition*, 8, 31–38.
- Gurevitch, M., & Blumler, J. G. (1990). Comparative research: The extending frontier. In D. L. Swanson & D. Nimmo (Eds.), *New directions in political communication: A resource book* (pp. 305–325). Newbury Park, CA: Sage.
- Keeter, S., Miller, C., Kohut, A., Groves, R. M., & Presser, S. (2000). Consequences of reducing nonresponse in a national telephone survey. *Public Opinion Quarterly*, 64, 125–148.
- Krosnick, J. A., & Milburn, M. A. (1990). Psychological determinants of political opinionation. *Social Cognition*, 8, 49–72.
- Mackie, T., & Marsh, D. (1995). The comparative method. In D. Marsh & G. Stoker

- (Eds.), *Theory and methods in political science* (pp. 173–186). New York: St Martins Press.
- MacKuen, M. B., & Coombs, S. L. (1981). *More than news: Media power in public affairs*. Beverly Hills: CA, Sage.
- McCombs, M., & Zhu, J.-H. (1995). Capacity, diversity, and volatility of the public agenda: Trends from 1954 to 1994. *Public Opinion Quarterly*, 59, 495–525.
- McLeod, J. M., Becker, L. B., & Byrnes, J. E. (1974). Another look at the agenda-setting function of the press. *Communication Research*, 1, 131–166.
- McLeod, J. M., & McDonald, D. G. (1985). Beyond simple exposure: Media orientations and their impact on political processes. *Communication Research*, 12, 3–33.
- McQuail, D. (1992). *Media performance: Mass communication and the public interest*. London: Sage.
- Price, V., & Zaller, J. (1993). Who gets the news? Alternative measures of news reception and their implications for research. *Public Opinion Quarterly*, 57, 133–157.
- Reinemann, C., & Brosius, H.-B. (1998). Themenvielfalt in der Bevölkerungsgenda Ost- und Westdeutschlands [Issue diversity on the public agenda in East and West Germany]. *Publizistik*, 43, 273–286.
- Schönbach, K., & Semetko, H. A. (1992). Agenda-setting, agenda-reinforcing or agenda-deflating? A study of the 1990 German national election. *Journalism Quarterly*, 69, 837–846.
- Shannon, C. E., & Weaver, W. (1949). *The mathematical theory of communication*. Urbana, IL: University of Illinois Press.
- Siune, K., & Hulten, O. (1998). Does public broadcasting have a future? In D. McQuail & K. Siune (Eds.), *Media policy: Convergence, concentration and commerce* (pp. 23–37). London: Sage.
- Smith, T. W. (1978). In search of house effects: A comparison of responses to various questions by different survey organizations. *Public Opinion Quarterly*, 42, 443–463.
- Smith, T. W. (1982). House effects and the reproducibility of survey measurements: A comparison of the 1980 GSS & The 1980 American National Election Study. *Public Opinion Quarterly*, 46, 54–68.
- Wanta, W. (1997). *The public and the national agenda. How people learn about important issues*. Mahwah, NJ: Erlbaum.
- Wanta, W., King, P., & McCombs, M. E. (1995). A comparison of factors influencing issue diversity in the U.S. and Taiwan. *International Journal of Public Opinion Research*, 7, 353–365.
- Weaver, D. H., Graber, D. A., McCombs, M. E., & Eyal, C. H. (1981). *Media agenda-setting in a presidential election*. New York: Praeger.
- Zaller, J. (1990). Political awareness, elite opinion leadership, and the mass survey response. *Social Cognition*, 8, 125–153.
- Zhu, J.-H., with Boroson, W. (1997). Susceptibility to agenda setting: A cross-sectional and longitudinal analysis of individual differences. In M. McCombs, D. L. Shaw, & D. Weaver (Eds.), *Communication and democracy: Exploring the intellectual frontiers in agenda-setting theory* (pp. 69–83). Mahwah, NJ: Erlbaum.

BIOGRAPHICAL NOTES

Jochen Peter and Claes de Vreese are Ph.D. candidates at the Amsterdam School of Communications Research (ASCoR) of the University of Amsterdam. Jochen Peter's research interests focus on cognitive media effects. Claes de Vreese's research interests lie in the field of political communication with special reference to the European Union.

Correspondence concerning this article should be sent to: Jochen Peter, ASCoR, University of Amsterdam, Kloveniersburgwal 48, 1012 CX Amsterdam, The Netherlands, Email: peter@pscw.uva.nl