One of the most dramatic changes transforming broadcasting in post-industrial societies has been the growth of commercial competition. Two decades ago all European countries had a monopoly of public channels except for Britain and Italy (with dual systems) and Luxembourg (all commercial). In 1980 there were 36 public and 5 private channels in Europe. The common aim of public television in the Reithian tradition was to serve the broader public good, combining popular mass entertainment with serious informational programmes about public affairs. By 1997 the balance was reversed: only three countries had purely public national channels (Austria, Ireland, and Switzerland) and across Europe there were more commercial (55) than public stations (45) (Norris 2000).

This development has fuelled a fierce European debate. Visions about the commercialization of the media market went hand-in-hand with fears about the loss of the public service broadcasting ideal. Proponents of opening television to free competition pointed to the chance of a new diversity of outlets maximizing audience choice. Opponents often referred to the U.S. experience, equaling commercialization with Americanization, and warned of negative consequences for society and the individual. One major concern was that entertainment programmes would outweigh and marginalize informational content, leading to an impoverished public sphere. The sudden expansion of private channels produced a surge in the amount of imported television programmes, mainly from the United States, which many Europeans feared could also endanger national production and national culture. In general, commercial television was expected to be of ‘lower quality’ than public television, and it was believed that this might reduce standards on the public stations. A related worry was that a shrinking audience for public TV would undermine the rationale for continued financial subsidies like license fees (see, for example, discussions about commercialization in Blumler 1992; Weymouth and Lamizet 1996; Humphreys 1996; Tracey 1998; McQuail 1998: 117).

There is nothing new about concern over commercialization. As early as 1948, Lazarsfeld and Merton, in their classical article “Mass Communication, Popular Taste and Organized Social Action”, argued that “the social effects of the media will vary as the system of ownership and control varies.” (p. 106) They further accused the U.S. media of preventing the development of a critical perspective on society: “…our commercially sponsored mass media promote a largely unthinking allegiance to our social structure.” (Lazarsfeld & Merton 1948: 108) Lazarsfeld and Merton drew conclusions based on their experience of the U.S. media system.

Thirty-five years later, when the debate about the introduction of commercial broadcasting revived in Europe, much research was still not available that actually assessed the impact of private ownership on the audience. Most West European countries have allowed commercial broadcasters to enter the market. But the discussion about commercialization is still in full swing; studies have focused mainly on competition between the traditional public stations and the new commercial channels, and the consequences of this development for the content and quality of broadcasting. But what has been the impact of this development on the public, particularly their levels of information and knowledge about public affairs? Despite much intense speculation and heated debate, this topic has attracted surprisingly little systematic research, and even less comparative work allowing us to generalize with some confidence.
across different national cultures and media systems.

To explore this important issue, the aim of this paper is to examine survey evidence in the member states of the European Union to see whether habitual watching of commercial television is consistently associated with lower levels of knowledge of politics and international affairs, as some fear, and whether public television still serves its role to educate and inform, as others hope. Part I outlines the previous literature and our core propositions. Part II sets out the Eurobarometer survey data and key concepts. Part III describes the distribution of the public and private sector audiences, and also levels of political knowledge, across the EU. The analysis divides the European public into four groups, depending upon whether they usually watch public or private TV, and whether they regularly watch TV news or not. The most striking finding to emerge from this study is that commercialization matters. Watching public television is associated with higher levels of political information than watching commercial TV. Moreover, even with prior social and attitudinal controls, those who regularly watch public television news proved the most informed out of all European groups. In contrast the group who watched commercial TV entertainment proved the least informed. The conclusion considers the reasons for this pattern and alternative interpretations of these results.

Previous research and theoretical framework

With the growth of commercialization in the 1980s, European research has focused upon structural changes in the broadcasting industry and the impact of these developments upon the contents of programming and, to a lesser extent, upon audience viewing patterns. Studies found that the new variety of channels increased the total amount of time watched, and it was overwhelmingly the entertaining programmes that profited from this increase (e.g. for Germany: Kiefer 1996). At the same time, with the multitude of channels, the audience share for individual programmes necessarily decreased, the audience became more and more fragmented, which in turn has elicited concerns about far-reaching effects on society (cf. Holtz-Bacha 1997a).

Previous studies of the television audience have mainly concentrated upon the possible effects of commercialization on political attitudes. Pfetsch (1991), in a study done in the early years of the dual broadcasting system in Germany, found a clear relationship between preference for commercial television and low use of news and public affairs content, low political interest, low political efficacy as well as a preference for materialism. In contrast, viewers of public television showed higher political interest, scored higher on political competence, and leaned more towards post-material attitudes (Pfetsch 1991: 197). As the author points out, the question of cause and effect remains open for two reasons: Although based on panel surveys with two waves within one year, the data do not allow an assessment of changes in political orientation, because these attitudes are conceived to undergo only long-term changes. Furthermore, and this is even more important, the preference for commercial or public television, and the political attitudes under question, are confounded (Pfetsch 1991:197). This means that viewer characteristics, like their educational levels or political interest, influence both the selection of programmes as well as political orientations.

Another German study presented by Schulz (1998) found that preferences for commercial television channels and high attention to entertainment programmes were negatively correlated with political competence, meaning political interest and internal political efficacy. He thus corroborated Pfetsch's findings and called these a consequence of a "self-selection strategy" (Schulz 1998 : 532). That is, viewers with low political competence tend to avoid the traditional news and public affairs programmes and instead prefer entertainment offerings and so-called soft news.

However, in further analyzing the relationship between media use and political attitudes Schulz yields findings that stand in contrast to the results of earlier research. While several studies conducted in Germany during the late eighties and early nineties assessed a correlation between preference for entertaining media content on the one side and political efficacy and trust on the other side (e.g. Holtz-Bacha 1990; Jäckel 1991; Pfetsch 1991), this study, based on data from the mid-nineties, shows a positive correlation between general television use and political competence. In addition, channel repertoire, that is the availability of a multitude of television channels, as well as attention to TV information, are correlated positively with political cynicism even after multivariate controls. So, Schulz interprets his findings in the
light of the recent changes that affected the television market and their consequences for content: Due to the new competition, he believes that television in general has become more negative and more sensational on all channels (Schulz 1998: 537). This means that the convergence between the offerings of commercial and public channels does not allow for different effects on the attitudes of the viewers with different channel preferences.

Elsewhere another study (Norris 1997:218) analyzed the impact of exposure of different television news programmes in the context of the 1992 British general election. The results showed that there was a systematic difference by sector, namely BBC2’s Newsnight and BBC1’s 9 O’Clock News were associated with higher levels of information, whereas this association was not significant for ITV’s News at Ten or the other early evening news programmes which tended to fall into the ‘softer’ category. Nevertheless this pattern was not uniform as Channel 4’s 7 O’clock News, providing extensive serious electoral coverage, was also associated with higher knowledge. One of the few comparative studies that examined the impact of the type of programme on knowledge of foreign affairs in five countries, by Bennett et al. (1996), confirmed that watching TV news was positively associated with knowledge, while watching popular television shows was strongly negatively associated. While suggestive, this study did not go further to explore the influence of broadcasting sector per se.

Therefore these previous studies are suggestive but limited. Given systematic cross-national differences in public broadcasting organizations and traditions it is difficult to know how far we can generalize more widely from the experience of watching particular stations to others, for example whether regular viewers of ZDF in Germany are similar to viewers of BBC1 in Britain, ORF2 in Austria, or RAI1 in Italy. Nor is it clear how far we can extend findings about TV’s impact on attitudes like political efficacy and trust to understand its impact upon cognitive levels of political knowledge and information. Many American studies have examined the correlates of political knowledge but, while examining the impact of exposure and attention to television news, these have not gone further to distinguish between broadcasting sectors, in large part because of the small size of the audience for PBS and NPR (see, for example, Delli Carpini and Keeter 1996: 178-217).

Yet there are many reasons to believe that private and public television may continue to differ systematically in their programming contents and that, in turn, the regular experience of watching public-service television, particularly public sector news, may therefore gradually have a diffuse influence upon the public’s knowledge of politics and awareness of international affairs. Our argument develops certain testable hypotheses based on three main assumptions, namely that (i) public service broadcasting continues to serve a more informational role than private television stations; further that (ii) in their news coverage, in particular, commercial TV is more entertainment-oriented than public TV; and that (iii) there is a process of interaction between habitual patterns of media use and political knowledge.

(i) The Informational Function of Public Service TV

When public service television was founded in Britain in 1927 Lord Reith’s classic definition of the core responsibilities of the BBC was to “entertain, inform and educate”, an ethos widely adopted in other European countries. As such the duty was certainly to provide popular entertainment, such as music, arts and drama, but also to serve the public by extended coverage of public affairs, world events and parliamentary debate. Although public television has been transformed over the years, from the wireless to the Internet Age, nevertheless these core principles continue to be reflected in the standards guiding broadcasters. In contrast, we expect that most broadcasting stations totally financed through advertising are mainly interested in attracting a large audience, unless a regulatory framework exists which mandates them to target minority groups. Any decision will therefore be guided by the goal of maximizing their audience. This has consequences for the overall structure of programming and the balance between information and entertainment. As a result we expect that commercial channels will usually broadcast more programmes at peak-time designed to attract the mass audience, such as movies, sports, game shows, telenovelas, and popular sit coms, while in contrast public-service channels will tend to give higher priority to documentaries, current affairs, news and arts. This distinction between sectors is not watertight; for example obviously we would not expect this pattern to apply to
commercial channels devoted to 24-hour rolling news, such as SKY News and CNN International. Some public sector channels and programmes are also designed to be more mainstream and popular than others. For example, content analysis comparing the amount of coverage of international affairs across European channels in the 15 member states of the EU found considerable variations among channels within each sector, as well as differences between sectors (Norris 2000: Fig 5.1). Nevertheless as a working proposition we assume that there is still a distinction in programming between sectors, so that the balance of coverage would usually be more informational on public service stations and more entertainment-oriented on commercial channels.

(ii) The Entertainment-Oriented Focus of Commercial TV News

Moreover, when commercial channels broadcast news and public affairs, we would expect that these programmes would tend to be presented in a more entertaining way. This blending of informational content and entertaining presentation has been dubbed “infotainment” and has become a major issue for research (e.g. Blumler & Gurevitch 1995; cf. also the recent discussion between Brants, 1998, 1999 and Blumler, 1999). There has been much debate – although little systematic empirical evidence – that commercial news has certain features characteristic of ‘tabloidization’, particularly greater negativity and personalization, an increase in sensationalism and an overall lowering of journalistic standards (c.f. also the discussion about tabloidization, e.g. Esser, 1999). One important feature of ‘infotainment’ is a greater focus on domestic issues, notably human-interest stories, and a relative neglect of ‘hard news’ about political events, policy issues, and international affairs. Again we assume that there continues to be systematic differences in the contents of news coverage by sector, with ‘infotainment’ more commonly found on commercial channels, reflecting their need to maximize market share.

(iii) Interaction Effects

Lastly, we assume that in the long term there is a reciprocal process of interaction between patterns of media exposure and political knowledge. That is, we assume that there may be some ‘selection effects’ so that people who are most interested in news and informational programmes may turn more often to public TV. Conversely, people more keen to watch action movies or popular game shows may surf more frequently to commercial channels. But we also assume that in the long term there are some ‘media effects’ that result from this exposure. That is, where TV-watching habits are relatively fixed, and people habitually prefer either commercial or public television, then repeated exposure to each sector will have a long-term cumulative effect on the audience. People who continually watch more public TV, and especially more public TV news, will gradually come to learn more about current affairs, to be better informed about political issues and to be more aware of global events. Although we choose whether to turn on or not, we assume that frequent attention to news about Berlin, Washington DC and Brussels will eventually increase our stock of political capital helping us to make sense of the world.

If these assumptions are correct, then this suggests certain specific propositions that can be tested in this study. As outlined in Figure 1 we can draw a distinction between what we can term ‘channel effects’ due to regular exposure to public or private stations, and ‘news effects’ that result from frequency of exposure to news. First, if public service TV continues to play a distinctive role, our first hypothesis is that (H#1) those who regularly watched public TV (irrespective of the programme) would have higher levels of political knowledge than those who watched commercial channels. Moreover we would expect that when regular exposure to public service television interacted with exposure to news this would maximize the conditions leading to an informed public. As such our second hypothesis is that (H#2) those who regularly watched public TV news would have the highest levels of knowledge about politics and international affairs compared with all other groups. Although widely assumed, few previous studies have analyzed this proposition systematically. Moreover, the corollary is that we would expect to find that (H#3) those who watched commercial TV with little news exposure would have least political knowledge, compared with all other groups. Lastly, given substantial differences in patterns of public service and commercial programming between countries, we would expect that (H#4) the size of the knowledge gaps between these groups might vary significantly by nation. These
propositions seem plausible, based on our core assumptions, and we can now turn to see whether they are supported by the evidence.

**Methods and Data**

These propositions cannot be tested adequately within the United States, due to its long tradition of commercial broadcasting, with only a marginal role for PBS, which does not offer enough intra-systemic variance for comparing the impact of either sector. The situation is different, however, in Western Europe. Since the late 1980s developments have led to the establishment of dual broadcasting systems in most European countries, that is, a television market where commercial and public stations compete within certain regulations. Although the size of the audience for the public stations suffered from considerable losses after commercial television entered the market, in most countries it has kept an important role and is still a serious competitor to the commercial newcomers (cf. e.g. Østergard 1997). The 15 member states of the European Union provide a suitable comparative framework since they are all post-industrial societies, sharing similar levels of socioeconomic development, political cultures, and established democratic political systems. A note on the country classification is useful. Luxembourg never had public service broadcasting and Austria did not have a dual broadcasting system when these data were collected, so both countries are therefore excluded from the analysis. Northern Ireland, though part of Great Britain, is treated separately because the media landscape in Northern Ireland differs from the rest of Great Britain due to its geographical proximity to the Irish Republic and because of the internal political situation. In addition East and West Germany were combined for the analysis, since the television system was similar in both societies. The 14 remaining EU member states therefore offer an opportunity to study the impact of preference for public or private sector television on the attitudes and information of viewers.

Data for the study derive from the Spring 1996 44.2 Eurobarometer survey. The Eurobarometer is conducted regularly in all member states of the European Union (EU). The questions for all countries are the same, however translated into the national language, and may be supplemented by additional questions tackling specific national issues. The following analyses are based on a dataset that was assembled between February and May 1996 with more than 65000 interviews conducted in the 15 EU member states. The national samples are representative of the respective populations.

Political knowledge of international affairs was used as the dependent variable. Knowledge of the European Union and its institutions is based on an additive scale of the answers to ten questions that asked respondents about EU related facts, for instance the current number of states in the EU, the name of the president of the European Commission, or the name of the European currency. Answers were coded 1 for correct and 0 for wrong, so that the highest value that could be reached on the knowledge scale was 10. The scale produced a normal distribution. These items gauge factual knowledge according to 'civics', which is arguably only one dimension of political understanding, but it can be argued that identifying the number of member states, or the name of the euro, provides an indication of at least some general grasp of European public affairs.

Respondents were also asked for their preferred national television channel. Channels for each country were subsequently identified as either public or commercial, allowing for a categorization of individual channel preference. Respondents were also asked about how often they watched the news on TV, using a five-point scale ranging from never (1) to everyday (5). Similar items monitored use of other media including daily newspapers and radio news.

An OLS multiple regression model was computed on the knowledge scale. For controls, several sociodemographic variables that are known to be influential either for media use or for political attitudes were included, as well as an indicator for political interest, and a left-right scale that measures where a respondent places her or his views on political matters on a ten-point scale (with 1 being left and 10 being right). Details of all coding are given in Table 1. The multiple regression model controls for the influence of other variables simultaneously. That is, if we find a significant correlation between the dependent variable (knowledge) and media use, this relation holds true while for example education or other sociodemographic variables that might influence the relation between

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2 Original questions are documented in the appendix.
knowledge and media use, are held constant.

Findings

Preferences for Public TV

First we can describe the distribution of preference for either public or commercial television in EU countries. The results shown in Figure 2 reflect the diverse media environments that the audience encounters in the EU member states. The countries differ in the time when they finally introduced commercial broadcasting leading to different stages in the development of the dual broadcasting system. In addition, though most EU member states today have a dual broadcasting system with commercial and public television competing for their audience, the market in some countries is has many more channels than in others. That is either a consequence of the geographic situation with channels from neighboring countries being available either through cable or by satellite (e.g. Belgium), or of the size of the population that provides a more lucrative advertising market (e.g. Germany).

[Figure 2 about here]

Countries in Figure 2 are ranked according to the percentage of viewers naming a public channel when asked for their preferred television station. Denmark ranks first, with only about 7% of the respondents preferring commercial TV. That is easily explained by the fact that Denmark had not yet introduced a terrestrial commercial television on the national level. The Nordic channel, broadcast for Scandinavia from London via satellite, is the only commercial channel that is available nationwide (cf. Petersen & Siune 1997). The situation in Ireland, ranking second here, is similar insofar as the commercial channels available in the country (ITV and Channel 4) are broadcast from Great Britain (cf. Kelly & Truetzschler 1997). Thus, with the overwhelming majority of Irish respondents stating a preference for public service television, it becomes clear that this also expresses the audience's allegiance to national television in contrast to British commercial offerings.

In Italy about one third of the audience preferring commercial stations over public television. With the exception of Britain, no other EU member state has such a long tradition of the dual broadcasting system as Italy. Commercial television was introduced in Italy in 1976 (cf. Mazzoleni 1997), necessarily leading to a loss in audience shares for the public service channels although twenty years later a majority of the audience still preferred public TV.

Turning to the other end of the rank order, we find Portugal and Greece, together with Finland, France and Germany, among the countries where the majority of viewers prefer commercial over public television. As Southern European countries, Portugal and Greece belong to the group of so-called TV-predominant nations where the electronic media plays a much more important role than newspapers (Norris 2000). The countries of Northern Europe and Scandinavia in particular are newspaper nations, with a high ratio of papers per inhabitants. The marginal role of public television in Greece may be explained by the fact that these channels are owned by the state and are under the control of the government and may therefore be discredited, not least influenced by the country's recent history. In addition, the public channels failed to adapt themselves to the new competition on the television market (cf. Dimitras 1997). While commercial broadcasting was introduced to Greece at the end of 1980s, the dual system in Portugal did not develop before the early nineties. However, already a majority of the Portuguese TV audience prefers commercial over public television and this is due to the success of only one commercial channel. It is open to discussion whether this pattern was influenced by the role of the broadcasting media during the dictatorial regime from 1926 until the revolution in 1974, and the subsequent nationalization of broadcasting in Portugal (cf. Nobre-Correia 1997).

Finding Finland among the countries where a majority of viewers indicate their preference for a commercial channel comes as a surprise. As with the other Nordic countries, Finland is regarded as a newspaper nation. However, commercial television in Finland has a tradition of more than ten years. It was introduced in 1986 when the MTV group started broadcasting at first as a window programme on the public channel until it got its own channel in 1993 (cf. Tapper 1997). France is a country with a somewhat longer tradition of commercial television. Privately owned television started in 1984 when the subscription channel Canal Plus entered the market. In 1987, the public channel TF1 was privatized and soon became a success and finally, according to market share, gained the first place among the French national television channels (cf. Palmer & Sorbets 1997).

Germany has become the most diverse TV
market in Western Europe. Due to the establishment of several privately owned German stations since 1984 and the central geographic situation allowing for foreign channels to broadcast into the country, the German audience today can choose from many channels. Though the traditional public service channels are still comparatively strong, commercial television has quickly gained the major share of the market (cf. Holtz-Bacha 1997b; Kleinsteuber 1997).

So, behind the data for the different EU member states as shown in Figure 2 stand diverse reasons that must be considered when interpreting audience preferences. These reasons include historical and political factors in general, as well as structural characteristics. There are important differences, because public service television varies from public stations independent of the state (e.g. the BBC), to public service stations with some state influence (as for a long time in France), and to completely state-owned television (as in Greece).

Cross-national Levels of Political Knowledge

There are also substantial cross-national differences in the levels of knowledge about politics and international affairs evident in the individual EU member states. As shown in Figure 3, Luxembourg ranks first here. This result can be partly attributed to the fact that the question asking for the president of the European Commission, coming from Luxembourg, was more familiar for the respondents in this country. Moreover, some of the European institutions are located in Luxembourg, which may have led to a particular awareness for European matters and also helped when identifying the location of most European institutions, where Luxembourg was one of two possible correct answers.

Preference for Public TV and Political Knowledge

To move to the issue at the heart of this study, what is the relationship between regularly watching public sector television and awareness of politics and international affairs? The simple mean scores, without any prior controls, indicate that preference for public TV was positively associated with higher knowledge: those who preferred public TV scored almost four correct answers out of ten, compared with a score of three out of ten for those who preferred commercial TV. The knowledge gap by sector was not large, at around 10 percent, but this can be attributed in part to overlapping channel watching, given that people who preferred one channel would still often view many others. When tested by ANOVA the difference between groups proved statistically significant.

But was this knowledge gap the result of the type of people who opted for public TV, such as their prior education or social class? To examine we need to move from descriptive statistics to multivariate analysis. Table 1 displays the results of the full multiple regression model on knowledge with social, attitudinal and media controls. Although using the same model for each nation, to clarify the results only the coefficient for the effects of public TV are presented in Table 2. Beta coefficients show the strength of the relationship between the respective independent and the dependent variable while controlling for the other independent variables. The $R^2$ coefficients shown for each country in the table indicate the percentage of explained variance for the dependent variable in the whole model.

With the exception of Northern Ireland, the relation between preference for public television and political knowledge is positive in all countries, and statistically significant in 10 out of 14 nations. The results confirm that preference for a public television channel goes hand-in-hand with higher knowledge of politics, even with the battery of controls, supporting our first hypothesis. Four countries stand out here with a beta coefficient higher than. 10; these are the Netherlands, Belgium, Finland and Sweden. In
these countries the correlation between knowledge and preference for public channels is comparatively strong.

**Interaction Effects: The Impact of Public TV News**

But does it matter what type of programme you watch, as well as what sector? This can be analyzed by combining channel preference with the frequency of watching television news. The use of two separate questions leaves open whether the news was regularly watched on a public or commercial channel but it can be expected that respondents often turn to the news on their preferred channel or think of the station where they watch the news when asked for their channel preference. Combining these items allows us to classify people into four groups, already outlined in Figure 1: public TV news (the audience who prefer public TV and watch TV news everyday); public TV entertainment (who prefer public TV and watch news less frequently); commercial TV news (who prefer commercial TV and watch TV news everyday); and commercial entertainment (who prefer commercial TV and watch news less frequently).

We can compare the mean scores on the political knowledge scale for these four categories of viewers, without any controls. The results of the analysis for all EU member states in Figure 4 show that the groups fell into a linear pattern as expected: the public TV news audience scored highest on the knowledge scale (3.87 out of 10), compared with a score of 3.53 for the audience for public TV entertainment, 3.08 for those preferring commercial television news, with the lowest score (2.77) for those preferring commercial TV entertainment.

ANOVA tests showed that the difference between groups was significant (Eta = .174 p.01). These results confirmed our hypotheses that there would be interaction effects between channel and news exposure, so that public TV news would produce the most informed public (H#2), while commercial entertainment would produce the least informed public (H#3).

[Figures 4 and 5 about here]

Yet we might also expect some important variations between countries, depending upon the nature of the media system and particularly whether the schedules of commercial stations are purely entertainment-dominated (like movie channels) or whether they give a higher emphasis to documentaries, news and current affairs (like Sky News or the History Channel). Figure 5 breaks down the level of political knowledge by groups within nation and two main patterns emerge. In half the nations there is a linear association between groups in the expected direction, with each group showing progressively lower levels of political knowledge, notably in Belgium, Denmark, Spain, France, the Netherlands, Britain and Finland. In these countries, to predict levels of political information, it is more important to know what sector is watched, rather than what programme is watched. In contrast in six countries the pattern indicates that it is more important whether the viewer regularly watches news programmes, rather than what channel they watch it on. This pattern is evident in Germany, Greece, Italy, Ireland, Portugal and Sweden. In two countries no pattern can be discerned: Northern Ireland, where the results may be unreliable due to the small sample size, and Austria where there was no commercial channel. The comparison confirms our fourth hypothesis, namely that the differences between groups would vary systematically by nation. To go further to explain the differences between these nations we would need more detailed information about the pattern of television broadcasting and the contents of programming in the public and commercial sectors, which is the topic of future research.

**Conclusions and Discussion**

In many West European countries, commercial television has made a successful entry to the market and gained a considerable share of the audience. In some countries preference for commercial television is higher than for the traditional public channels, in several others commercial stations are about equally popular. Where commercial television is in a clear minority role, this is often due to its late introduction.

The findings about the relation between channel preference and political knowledge as presented here can be seen to support pessimistic expectations about the consequences of the introduction of commercial broadcasting. In most countries, better knowledge is positively and significantly correlated in general with preferences for public broadcasting, and in particular with preference for public TV combined with regular exposure to news.

We cannot prove the direction of causality implicit in this persistent association. Although
regression analysis models build on assumptions about the direction of the causal relationship in determining a dependent variable, data derived from a cross-sectional survey do not allow for any such assessment. However, the findings allow for interpretations on the basis of plausibility. Three possible interpretations are possible.

The ‘selection effects’ hypothesis is that because of prior social and political attitudes, some people choose to watch public sector TV in general, and public sector television news in particular. In this view, we expect that people tune into the type of programmes that most interests them. In this case the direction of causality runs from cognitive skills to media use, and the more politically knowledgeable choose to watch the more informative public TV news.

Alternatively the ‘media effects’ hypothesis suggests that because of prior media habits, some people who regularly watch public sector TV in general, and public sector TV news in particular, thereby learn more about events in Brussels and Strasbourg, hear about the politics of the European Union, and thus become more politically knowledgeable. If citizens today get most of their knowledge about politics through the media rather than through personal experience, and this is even more the case for more “distant” matters of European politics, at least some impact of the media on the level of political knowledge may be expected. In this view, the direction of causality runs from the news media to knowledge, and exposure to public TV news produces a more informed public.

But rather than an overly-simple one-way flow, it seems most plausible to assume that in the long-term there is an interactive process, or ‘virtuous circle’, between media habits and political knowledge (Norris 2000). That is to say, the more politically aware may well turn on the news and watch current affairs documentaries on public TV, but, in turn, repeated exposure to these programmes increases levels of civic information.

What are the broader implications of these findings? The results at individual level have to be understood within a broader social context. It follows that if the audience for public stations is shrinking, and the commercial sector is expanding, this is probably not good news for public knowledge of current affairs. If people are increasingly watching movies, rather than documentaries, and soaps rather than current affairs, then we can expect the public to gradually tune out from civic engagement. On this basis, European concern about the consequences of commercialization for the public sphere may well be justified. But this does assume that, given limited leisure time, watching TV is a zero sum game: the more people watch one channel, the less they watch another. On the other hand, less pessimistic conclusions can be drawn if the main impact of the growth of commercial channels has been to supplement, rather than replace, public service TV. The explosion of European stations on terrestrial, cable, satellite, digital and broadband services has produced far greater diversity on television, and more facilities to channel surf with the remote from the couch. In this context people in Sweden and France and Germany may now be watching more films and more news, more MTV and more CNN, more commercial and more public TV, more entertainment and more informational programmes, in which case there may well be less cause for concern about the democratic implications of this study.

References


Appendix A: Items used for constructing the knowledge scale:

Do you happen to know ...?

a) The current number of states in the European Union (correct answer: 15)

b) The name of the President of the European Commission (correct answer: Jacques Santer)

c) The number of (nationality) Commissioners (correct answer: 2 in D,E,F,IT,UK - 1 in all other countries)

d) The name of one (nationality) Commissioner (correct answer in D,E,F,IT,UK: name 1 or name 2) (correct answer in all other countries: name)

e) The recently chosen name for the European currency (correct answer: Euro)

f) The country which holds the Presidency of the European Union since January 1 and until end of June 1996 (correct answer: Italy)

g) The current value of the ECU in (national currency) (correct answer: between value 1 and value 2)

h) The city in which most of the European Union institutions are located (correct answer: Brussels or Luxembourg)

i) One of the two colours of the European flag (correct answer: yellow/gold or blue)

j) The year, when notes and coins in the European currency will be introduced (correct answer: 2002)

Correct | Wrong | DK |
Table 1: Model Predicting Political Knowledge, EU-15

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<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preference for public TV</td>
<td>.402</td>
<td>.09</td>
<td>Public (1) Commercial (0)</td>
</tr>
<tr>
<td>Frequency watch TV News</td>
<td>.054</td>
<td>.02</td>
<td>From Never (1) to Everyday (5)</td>
</tr>
<tr>
<td>Frequency read newspaper</td>
<td>.266</td>
<td>.14</td>
<td>From Never (1) to Everyday (5)</td>
</tr>
<tr>
<td>Frequency listen radio news</td>
<td>.138</td>
<td>.09</td>
<td>From Never (1) to Everyday (5)</td>
</tr>
<tr>
<td>Online</td>
<td>.128</td>
<td>.01</td>
<td>Online user (1) Not (0)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>.23</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: All coefficients are significant at the .01 level. Political knowledge is measured on a 10 point scale, as discussed in the text.
Source: Eurobarometer 44.2 Spring 1996 N. 65178.
Table 2: Predictors of political knowledge by nation

<table>
<thead>
<tr>
<th>Model I</th>
<th>Preference for public TV</th>
<th>Model II</th>
<th>Preference for public TV + news</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>St. Beta</td>
<td>Sig.</td>
<td>R²</td>
</tr>
<tr>
<td>Netherlands</td>
<td>.19 **</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>.18 **</td>
<td>.29</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>.17 **</td>
<td>.21</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>.12 **</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>.09 **</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>.09 **</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td>Britain</td>
<td>.09 **</td>
<td>.24</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>.07 **</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>.07 **</td>
<td>.24</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>.06 **</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>.02</td>
<td>.24</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>.02</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td>Portugal</td>
<td>.01</td>
<td>.31</td>
<td></td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>-.06</td>
<td>.20</td>
<td></td>
</tr>
</tbody>
</table>

Notes: 1) Standardized beta coefficients predicting scores on the 10-point political knowledge scale with the following variables being controlled simultaneously: Gender, education, age, income, left-right scale, and political interest. See Table 1 for the full model. Model I includes only preference for public TV (1) or commercial TV (0). Model II includes preference for public TV * frequency of exposure to TV news.

Significance levels: ** p < .01 *p < .05
Source: Eurobarometer 44.2 Spring 1996
Figure 1: Predicted Relationship between Type of TV Use and Levels of Political Knowledge

<table>
<thead>
<tr>
<th>Channel Effect</th>
<th>Prefers Public Channels</th>
<th>Prefers Private Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regularly watches news</td>
<td>Maximum</td>
<td>Moderate</td>
</tr>
<tr>
<td>Regularly watches little news</td>
<td>Moderate</td>
<td>Minimum</td>
</tr>
</tbody>
</table>
Figure 2: Preference for public or commercial TV

- **Public TV**
- **Commercial TV**
Figure 3: EU knowledge by country

Overall mean: 3.4
Figure 4

Levels of Political Knowledge by Group

<table>
<thead>
<tr>
<th>Mean Score out of 10</th>
<th>Public TV news</th>
<th>Public TV entertainment</th>
<th>Commercial TV news</th>
<th>Commercial TV entertainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 5: Level of Political Knowledge by Type of Viewer

Type of Viewers:
1. Public TV News
2. Public TV Entertainment
3. Commercial TV News
4. Commercial TV Entertainment

Bars show Means