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Media Priming in a Multi-Party Context: A Controlled Naturalistic Study in Political Communication

Wouter van der Brug · Holli A. Semetko · Patti M. Valkenburg

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Abstract This study investigates media priming effects in the context of a Summit meeting of European Union (EU) leaders. It differs in four ways from most previous non-experimental priming studies: (1) it provides survey data accompanied by a content analysis of the news, (2) it compares priming effects on evaluations of a number of political leaders, who differed in their visibility in the news, (3) it involves an issue with low salience, and (4) it studies priming effects in the context of a European Parliamentary democracy. The study involves a two-wave panel study (before and after the Summit) on a representative sample of 817 Dutch adults, and a content analysis of the newspaper and television news in the 8 weeks leading up to the Summit meeting. The study shows that media priming effects occur only for the politicians who appeared visible in the news in connection with the issue. The media priming effects were not significantly moderated by political attentiveness or by political knowledge. We also explore the aggregate level consequences of priming for the popularity of leaders, and demonstrate that, as a result of media priming, two politicians became more popular, despite having received a bad press.

Keywords Priming · European Union · Media effects · Political communication · Political leaders

W. van der Brug (✉) · P. M. Valkenburg
ASCoR, University of Amsterdam, Kloveniersburgwal 48, 1012 CX Amsterdam, The Netherlands
e-mail: W.vanderbrug@uva.nl

H. A. Semetko
Claus M. Halle Institute for Global Learning, Emory University, Atlanta, GA, USA

Introduction

Over the past two decades much research has been conducted that provides evidence of media priming effects in politics (e.g., Domke, 2001; Iyengar & Kinder, 1987; Krosnick & Brannon, 1993; Krosnick & Kinder, 1990; Miller & Krosnick, 2000; Valentino, 1999; Valentino, Hutchins, & White, 2002). The priming hypothesis presumes that, as a result of cognitive limitations, people use only a limited subset of the information stored in their memory. They are most likely to retrieve information from their memory that has been activated recently. So, when making judgments, people are most likely to form those judgments on the basis of recently activated information. When the priming hypothesis is applied to politics, the expectation is that citizens base their political judgments on information that has been activated recently. Since citizens rely to a large extent on the mass media for their political information, the media agenda will determine—at least to some extent—what information they will use when making political judgments, such as evaluations of the US President. Krosnick and Kinder (1990, p497) put it this way: ''the more attention media pay to a particular domain—the more the public is primed with it—the more citizens will incorporate what they know about that domain into their overall judgment of the President.'' Priming is therefore an important means by which the media affect evaluations of political leaders or parties.

In this study of media priming, we consider a very important yet routine happening in the ongoing process of European integration: the regular summit meetings of European heads of state. We assess how the news coverage of this summit meeting altered the basis of citizens' evaluations of domestic and international political leaders. The study employs two sorts of data: a two-wave panel study with interviews before and after the summit meeting, and a content analysis of the news. It contributes in three ways to the accumulated knowledge of priming effects.

First, this is a naturalistic study of media priming effects that is accompanied by a content analysis of the news. Much of the research on media priming has been conducted in the context of laboratory experiments (e.g., Domke, Shah, & Wackman, 1998; Iyengar & Kinder, 1987; Valentino, 1999). These controlled experiments are important, as they demonstrate the occurrence of priming in such situations. However, we do not know whether the conclusions can be generalized to the real world, where citizens are constantly bombarded with very heterogeneous messages, so that the effects of different news primes may wash out easily. To be sure, there are many naturalistic studies into priming effects of specific crises, such as the Reagan and the Iran Contra affair (Krosnick & Kinder, 1990), Bush and the Gulf War (Iyengar & Simon, 1993; Krosnick & Brannon, 1993), and Clinton and the bombing of Iraq (Edwards & Swenson, 1997). But since these studies did not include an accompanying content analysis, they could not link the priming effects to the appearances of politicians in the media. By making use of a content analysis of the news, we are able to rule out other explanations for priming effects. Even though our

study is not a real experiment, we will argue below that we have more possibilities to rule out alternative explanations than previous naturalistic studies.

Second, most priming research has focused on issues that arouse strong emotional responses from citizens, such as wars (e.g., Edwards & Swenson, 1997; Iyengar & Simon, 1993; Krosnick & Brannon, 1993; Krosnick & Kinder, 1990), the economy (e.g., Iyengar & Kinder, 1987; Jasperson, Shaw, Watts, Faber, & Fan, 1998), and race and crime (e.g., Domke, 2001; Valentino, 1999; Valentino et al., 2002). Valentino (1999) argues that issue ownership theory explains why these priming effects occur. A President, or another highly visible political leader, may have robustly and reliably demonstrated his capacity to deal with important issues, such as crime. If this issue becomes more important in the news, citizens are primed to evaluate politicians on the basis of their past performance in dealing with crime. This, in turn, has important implications for how the public evaluates this politician (e.g., Petrocik, 1996; Valentino, 1999). In our study, we focus on a topic—European Union (EU) politics—that at the time of data collection did not arouse strong emotional responses from the public, and on which parties and politicians did not have a clear reputation. If the media would also prime citizens to evaluate politicians on low-involvement issues such as attitudes toward the EU—and we will show that this is indeed the case—issue ownership is therefore not the only possible explanation of the way priming processes occur.

Third, most prior studies are based on data collected in the United States and have been limited to dependent variables that measure evaluations of some aspect of presidential performance. Studies, also mentioned earlier, have drawn on cross-sectional survey or panel data in specific crises such as the Reagan and the Iran Contra affair (Krosnick & Kinder, 1990), Bush and the Gulf War (Iyengar & Simon, 1993; Krosnick & Brannon, 1993), and Clinton and the bombing of Iraq (Edwards & Swenson, 1997), and additionally experimental data in more general or routine political contexts (Iyengar, 1991; Iyengar & Kinder, 1987; Miller and Krosnick, 2000). Research has also shown that the effect of issue position on evaluations of the President is a direct function of the ''salience of issues to the public'' (Edwards, Mitchell, & Welch, 1995, p108). Even though multi-party parliamentary systems and prime ministerial forms of government are more common worldwide than the two-party presidential system in the US, research on priming has, for the most part, failed to explore other important political contexts (a few exceptions are Gidengil, Blais, Nevitte, & Nadeau, 2002; Mendelsohn, 1996, which are both concerned with priming in a Canadian electoral context). The theory of priming does not predict that these effects would be different in a different context, or if the dependent variable is not an evaluation of the leader of a government, but a less prominent political figure. Yet, by testing empirically whether we find priming effects also under these conditions, we test the robustness of the priming theory.

We draw upon a very important yet routine happening in the ongoing process of European integration: the regular summit meetings of European heads of government. We explore the potential impact of news coverage of these events on citizens' evaluations of domestic and international political

leaders. Summits are important because they bring together leaders from each EU country for a major event that involves negotiation and usually some form of agreement. Important moments in European integration history have been marked by these events, such as the Treaty of Maastricht in 1992 or the Treaty of Nice in 2000. The summits represent the high points of visibility for the EU in the national news streams in EU countries.

Our research design enables us to establish the link between media content and priming effects in two different ways. First of all, we will use media content to establish how often different politicians had been in the news in relation with the EU. We expect priming effects to occur only with regard to those politicians who have been in the news in relation with the EU, but not for the other politicians. Second, we will distinguish in our samples respondents who are attentive to the news and those who are not.

In summary, our study has four purposes: (1) to test priming effects in a natural setting, outside of the experimental laboratory, (2) to bring information about the substantive content of news into priming effects research in order to test whether media priming effects are really a function of the news coverage as opposed to other factors, (3) to extend the focus of priming studies to low-saliency issues, and (4) to extend the focus of priming studies beyond a dependent variable pertaining to the popularity of the President or Prime Minister. In so doing, we not only advance the theory of media priming effects, but we also test whether media priming effects are due to the extent to which actors appear in the news in relation to an issue.

Moderators of Priming Effects

In the literature there appears to be agreement on the fact that priming effects occur in the case of highly salient issues and in the case of highly visible politicians. There is less agreement in the literature, however, on the intervening role of what has been called political expertise, political knowledge, political awareness, or political sophistication. All of these terms have been used to refer to the store of political information that an individual may have available to call upon in the process of making judgments or decisions.

There is considerable variation in levels of political expertise among the public (Converse, 1962, 1964; Luskin, 1987). These differences may influence the ways in which people take up and make use of information (see also Zaller, 1992), and thus reflect the extent to which they are likely to be primed. Research on media priming effects has also emphasized the important moderating influence of political sophistication (Miller & Krosnick, 1996).

As a case in point, experimental studies on the agenda-setting effects of television news found that people with lower levels of political knowledge were less able to ''counter-argue'' against the information in the news. As a consequence, it turned out that political novices, as opposed to those with higher levels of political knowledge, were more open to media influence (Iyengar & Kinder, 1987; Iyengar, Peters, & Kinder, 1982). However, as pointed out by Iyengar and Kinder, the tendency to be more affected by

political news assumes that people with little knowledge are exposed to such news. In these experimental studies, news exposure is manipulated as a stimulus. However, in the real world novices are less likely to be exposed to news than political experts, so that the results of these experimental studies may not pertain to the real world as well.

Yet, one of the most widely cited naturalistic studies on priming reached the same conclusion: priming was more apparent in the judgments of political novices than in those of political experts (Krosnick & Kinder, 1990). Their explanation is that political experts ''possess a greater and more flexible ability to deal with new information and to interpret it in ways consistent with their prior convictions'' (p501). As a result they are more immune to the effects of new information. Even though novices were probably less exposed to news than the experts (p501), the Iran-Contra scandal appeared so dominant in the national news, that even the least knowledgeable were exposed to enough information for priming effects to have an effect. However, the study of Krosnick and Kinder did not consider the possibly different effects of knowledge and exposure.

Krosnick and Brannon (1993) investigated different aspects of political involvement, in particular the separate and combined roles of knowledge, interest and exposure, in the priming of evaluations of US President George Bush. They concluded that the relationship between knowledge and priming effects is quite different from what previous research suggested. When political knowledge, exposure, and interest were examined simultaneously, the outcome was that ''high levels of political knowledge enhanced priming, and high levels of exposure and interest reduced priming'' (p972). They explain these counterintuitive findings as follows. Higher political knowledge is related to more cognitive skills, which implies a ''greater ability to interpret, encode, store and retrieve new information,'' which thus explains the stronger priming effects. Those who are most interested and most exposed to news are also most aware of the possible effects of media content. They are therefore more resistant to being affected by the news, which explains the weaker priming effects among this group. Krosnick and Brannon (1993) argue that future research should examine these three dimensions—knowledge, interest, and exposure—in studying attitude change. The findings for political knowledge were later confirmed in an experimental study of Miller and Krosnick (2000), and in a naturalistic setting by Kimball (2005).

In this study, we build upon the work of Krosnick and Brannon (1993). However, rather than investigating all three dimensions of political sophistication—knowledge, interest, and exposure—we focus only on two dimensions: knowledge on the one hand and interest and exposure to news on the other. We will refer to the former dimension as ''political knowledge'' and to the second dimension as ''political attentiveness.'' There are two reasons for concentrating on these two dimensions rather than all three. The first rationale is that the conditioning effects of exposure and interest were found to be similar in Krosnick and Brannon's (1993) study. From a substantive point of view, there is thus no need to distinguish between exposure and interest. The second reason is a rather pragmatic one: the separate items by which we

measure exposure to news and political interest (see below) turned out to form a strong scale. Since exposure to news and political interest are so strongly correlated, we cannot estimate their moderating effects separately.

Hypotheses

All of the evidence of priming effects in the context of real political events has shown that the visibility of issues in the news can prime evaluations of the American President. Since news about European integration is more visible in the period leading up to and including an EU leader Summit, we may expect that news about the EU Summit will prime attitudes toward the EU in evaluations of political leaders connected with the Summit. Our study moves beyond an evaluation of only the top political leader in a country. We include evaluations of various national and international politicians: some appeared often in the news in connection with the EU Summit, and others never appeared in the news in connection with the Summit.

There are various examples in the literature of priming effects that occurred even though no direct link existed in the news messages between the news prime and the evaluated politician. The crime news footage that Valentino (1999) showed to his experiment participants contained no references to politicians and their ways of handling crime. In later experiments racial attitudes were also primed in political ads, even if the messages in these ads contained no racial imagery (Valentino et al., 2002). So, it is theoretically possible that priming effects could occur, even if there is no direct link in the media between the priming issue and a politician. However, to the extent that priming effects are a direct consequence of actors' appearances in the news, we expect priming effects of an issue to depend upon the visibility of a politician in connection with that issue. Our first hypothesis is therefore:

H1 When a politician is highly visible in the news in connection with an issue, citizens will be primed to evaluate this politician on the basis of their attitudes toward that issue.

In addition, to the extent that priming effects are truly media effects, we may expect that those who are regular media users will be more likely to be primed than those who hardly use the news media. Krosnick and Brannon (1993) found, however, that political attentiveness had a negative moderating effect on priming, when levels of political interest were controlled for. Our second hypotheses is therefore:

H2 When controlling for levels of political knowledge, priming effects will be stronger for citizens with low levels of attentiveness (exposure and interest) than for those who are more attentive.

Finally, also on the basis of Krosnick and Brannon's (1993) study, we anticipate these priming effects to be stronger among higher levels of ''political knowledge,'' so that our third hypothesis is:

H3 When controlling for levels of attentiveness (exposure and interest) priming effects will be stronger for citizens with high political knowledge than for those with less political knowledge

Research Design and Methods

Our study was specifically designed to measure the impact of the June 1997 Amsterdam Summit on Dutch attitudes toward the EU. The Amsterdam Summit was held on June 16 and 17, 1997. For our study, we collected two types of data: a content analysis of the news, and a two-wave panel study among a representative sample of Dutch adults, interviewed before and after the Summit. The information from the content analysis will be used to specify for which politicians media priming effects are to be expected if the priming effects are a direct function of the media coverage. We will first describe the information gathered from the content analysis, after which we will discuss the survey and research design.

The Content Analysis

We conducted a content analysis of the Dutch national news media in order to capture the coverage of Europe during this period. Our selection of outlets included three main evening news programs and four national newspapers, from May 1 through June 20, 1997. The content analysis of television news included every story in the bulletin.[1] A total of 2,601 television news stories and 1,522 newspaper stories were coded. The content analysis data are used here to establish the pattern of coverage, in regard to the political leaders in the context of the news about Europe and European integration.

We coded the appearance of a key politician or political leader in the specific news outlets. Key politicians comprised those domestic and international politicians who were active and visible in the Summit, as well as a number of domestic politicians who were party leaders but not actively involved in the Summit. One additional international leader not involved in the Summit was included in the coding.

Europe accounted for an average of 18.7% of news stories across all outlets during this period.[2] The Summit itself and topics related to it were more visible on the front pages of newspapers and more likely to be at the top of TV news programs as the event approached, and on the days that the event took place. If one was exposed to any of the main news outlets in the days

[1] Because of the high volume of political news in the press, a decision was taken to focus on all front page news plus those news stories inside the newspapers that dealt with one or more of the following issues: Europe or European integration, drugs policy, crime, and immigration. Because of the large number of newspaper stories that continued to meet these criteria, the decision was taken to code newspapers every other day.

[2] A news item may, of course, deal with the European Union, as well as with other issues, such as crime. In 18.7% of the total number of news items selected in this 8-week-period (see note 1), Europe or European integration was one of the topics. Other topics in the news included crime, social welfare/education, economy, infrastructure/ environment/ agriculture, foreign news, politics in general, and non-political news. Although there was variation across newspapers and television news programs, only one outlet that had a small audience came in well below the above reported averages and that was a new television news program that resembled US local news in its emphasis on crime and non-political news.

surrounding the Summit, it was nearly impossible to overlook the fact that the EU Summit was taking place in Amsterdam.

Figure 1 presents how often politicians were mentioned in the news in connection with Europe. These politicians are rank ordered in the legend according to their prominence in the news in connection to Europe in week 8, which is when the summit meeting was held. The Figure thus shows that the visibility of certain politicians generally increased in the news about Europe during the last 2 weeks under study, the week before and the week of the Summit. The politicians whose prominence in the news about Europe increased were the Dutch Prime Minister Wim Kok, the Dutch Minister of Foreign Affairs Hans van Mierlo, and the three main international leaders at the Summit, Germany's Chancellor Helmut Kohl, the French President Jacques Chirac, and the British Prime Minister Tony Blair. Visibility did not increase in the news for US President Bill Clinton, the Dutch Liberal Party (VVD) leader Frits Bolkestein, the Green party leader Paul Rosenmöller or the Christian Democrat leader Paul de Hoop Scheffer, none of whom were active in the Summit.

Based on the relative visibility of the politicians in the news, we can now be more precise with respect to our first hypothesis (H1). We expect the strongest news priming effects for those politicians whose visibility in the news in connection with the EU increased in the period under study. These politicians include the Dutch Prime Minister (Wim Kok), the Dutch Minister of Foreign affairs (Hans van Mierlo), the German and British Prime Ministers (Helmuth Kohl and Tony Blair), and the French President (Jacques Chirac). So, if attitudes toward a politician had a negative effect in the first wave on his evaluation, we expect the effect to become more strongly negative, if the

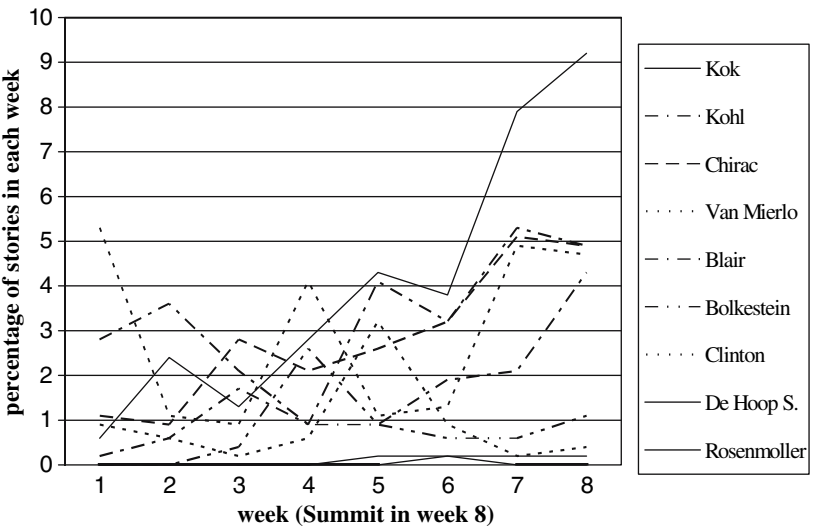

Fig. 1 Percentage of all news stories, which mention political leaders and which deal with the topic Europe

effect was positive we expect it to become more strongly positive. In contrast, we expect to find weaker or no priming effects for evaluations of politicians whose visibility in the news did not increase in the period of the Summit. These politicians consist of the US President (Bill Clinton), and the leaders of three Dutch political parties: the VVD (Frits Bolkestein), the Greens (Paul Rosenmöller), and the Christian Democrats (Jaap de Hoop Scheffer).

How did the news media cover the Amsterdam Summit meeting? Table 1 presents the extent to which five different types of news frames were used in the stories about Europe. For the coding of the frames we made use of a coding scheme that is described in detail elsewhere (Semetko and Valkenburg, 2000). The extent to which the five news frames are present in a news story is measured on a scale from 0 to 1 and Table 1 presents the averages for the seven outlets. When Semetko and Valkenburg presented the use of news frames for *all* news, they concluded that the responsibility frame was used most often, followed by conflict, economic consequences, human interest, and morality frames (p93). Table 1 shows that in the newspapers the ordering is the same for news about Europe. So, in the period leading up to the Amsterdam Summit, newspapers framed European news very similar to the way they frame other kinds of news.

The Amsterdam Summit, at which the Amsterdam Treaty was agreed upon, signified an important step in the process of ongoing European unification in which countries give up part of their sovereignty to European institutions. It is not surprising therefore that the responsibility frame was so prominent in the news about Europe. At the meeting, the Treaty of Amsterdam was agreed upon and conflicts were limited. Yet, Blair vetoed the EU-budget, because of the British rebate that he did not want to give up. So, the fact that a conflict frame was rather prominent is not so surprising either. It is somewhat surprising that the human interest frame is not more important, because of the images of government leaders riding their bikes through Amsterdam.

An important aspect of these findings is that the rank ordering in the importance of the five news frames is the same for all four newspapers, and very similar to how the two most important TV news programs, NOS and RTL, framed the news. In the TV news on Europe a human interest frame was

Table 1 Frames used in news about Europe

	Attribution of responsibility	Conflict	Economic	Human interest	Morality	*N*
Print news						
Telegraaf	0.59	0.31	0.17	0.16	0.01	181
Algemeen Dagblad	0.57	0.36	0.17	0.14	0.02	195
Volkskrant	0.57	0.42	0.24	0.12	0.01	203
NRC	0.68	0.49	0.21	0.12	0.01	268
TV news						
NOS	0.55	0.47	0.12	0.15	0.02	83
RTL	0.59	0.41	0.08	0.17	0.01	65
Hart van NL	0.41	0.27	0.08	0.28	0.02	17

more important than the economic consequences frame, whereas this was the other way around for the newspapers. The only TV program that framed news about Europe substantially different than the others is Hart van Nederland, an infotainment program that did not pay much attention to news about Europe.

The content analysis did not contain information on whether the media were generally in favor of European integration or not. We do, however, have information about the tone of the news toward politicians (Table 2). Because of the limited number of news items on Europe in which each politician appeared, it was decided not to distinguish between the seven different outlets when presenting the information in Table 2. Table 2 shows that in the majority of news stories about Europe, the coverage of politicians tended to be straight, which means that only facts were reported and no evaluation was given. Whenever there was an evaluation, this tended to be rather positive in the case of Wim Kok and Tony Blair, rather negative in the case of Helmuth Kohl and Jacques Chirac and almost equally balanced in the case of Hans van Mierlo. The information in Table 2 does not lead to different predictions regarding priming effects than we made on the basis of Fig. 1.

When a respondent is asked in a survey to evaluate a politician, the respondent will rely upon information about this politician that is easily accessible. If this politician has recently been often in the news in connection with Europe, it is more likely that the respondent will use this information from his/her memory. Priming thus refers to changes in the *criteria* that citizens use to evaluate stimuli (in this case politicians). A proper test of the priming hypothesis should therefore rely upon the amount of recent news about the issue that is primed, not the tone of the news. However, the tone of the message may well interfere with the media priming process, and in some ways contaminate the results. We will return to this when we discuss the results.

Survey Data

To measure priming effects resulting from the June 1997 Amsterdam Summit, a two-wave panel study was carried out by The Netherlands Institute for

Table 2 Tone of news toward politicians in news stories about Europe

	Straight (%)	Negative (%)	Mixed (%)	Positive (%)	Total *N* (%)
Priming effects expected					
Wim Kok	58.5	8.5	12.2	20.7	164 (100)
Hans van Mierlo	74.3	7.3	6.4	11.9	109 (100)
Helmuth Kohl	61.9	17.1	11.4	9.5	105 (100)
Jacques Chirac	54.7	23.4	11.7	10.2	128 (100)
Tony Blair	48.0	4.8	8.0	39.2	125 (100)
Priming effects not expected					
Frits Bolkestein	43.8	6.3	12.5	37.5	32 (100)
Paul Rosenmöller	100.0	0.0	0.0	0.0	1 (100)
Jaap de Hoop Scheffer	66.7	0.0	0.0	33.3	3 (100)

Public Opinion (NIPO), using individual respondents in their telepanel. The NIPO telepanel is a representative sample of the Dutch public and has been the basis for numerous academic studies (e.g., Kleinnijenhuis & De Ridder, 1998; Kleinnijenhuis & Fan, 1999). While the total sample size had 1,025 respondents in both waves, panel mortality resulted in 817 respondents actually participating in both waves; all analyses below are based on these 817 respondents.[3] An analysis of the demographic characteristics and political judgments of these 817 respondents shows that they were quite similar to the total sample. Interviews for the first wave took place in 1 week, from May 15 to 21, 1997. The Summit took place on June 16–17, and interviews for the second wave were fielded from June 20 till 26.

Listwise deletion of missing data would have lead to a loss of approximately half of the sample in many of our analyses. Therefore, we decided to impute missing data, using a method proposed by King, Honaker, Joseph, and Scheve (2001).[4] The substantive conclusions of the analyses are generally the same, although stronger priming effects would be found if we had used listwise deletion than in the results reported here, using imputation of missing data. So, the results presented here are the most conservative.

Building in Extra Controls in a Non-Experimental Design

As our own content analysis has shown, we know that that there was a considerable amount of attention paid to Europe in the news, as well as to the political leaders involved in the Summit. In order to test for evidence of media priming effects, we need to establish whether attitudes toward the EU become more important in predicting evaluations of visible political leaders after the Summit.

In a controlled experiment, we would have an experimental group that is exposed to certain news and a control group that is not exposed to such news, and we would see whether the bases of evaluations of politicians change in our experimental group, while they remain the same in a control group. In a naturalistic study such as ours, we cannot manipulate the news exposure, and

[3] The telepanel consists of a sample of households that is representative of the Dutch population. Different members of the households are required to answer a questionnaire each week electronically, and the data from different waves can be linked at an individual level. Since different members of each household can fill in the questionnaire there is always only a partial overlap between the different waves. As a consequence ''only'' 817 respondents participated in both waves, even though 1,025 persons were interviewed in each separate wave. We decided to estimate our model on the selection of respondents who participated in both waves, so that our results were not affected by differences in the composition of the samples. The analyses were also done for the full sample of 1,025, with the same substantive results.

[4] We used a program called *Amelia*, which is programmed by Honaker, Joseph, King, Sceve, and Singh (2001), and which is available through Gary King's website: http://Gking.Harvard.edu/. All analyses were performed five times on five datasets in which the missing data were imputed under different assumptions. The reported parameter estimates are the averages of the five estimated values. The standard errors are then computed using a different formula, which is based on the estimated standard errors, as well as the variance in the estimated parameters (for details, see King et al., 2001).

we cannot randomly assign test persons to different conditions. We have however, incorporated two other kinds of controls in our research design.

The first type of control is that we included four politicians who were hardly (or not at all) visible in the news in connection with Europe in the period of our study: Clinton, Bolkestein, De Hoop Scheffer, and Rosenmöller (see Fig. 1). If news about the EU Summit primes citizens, then we expect evaluations of visible political leaders to be primed by attitudes triggered by that news; conversely, the bases for evaluating politicians not visible in connection with the Summit would remain stable. The other four politicians were therefore included as a baseline to assess priming toward politicians who received more coverage in the news.

The second type of control in our research design is that we included two other attitude scales in our survey, which were not primed: attitudes toward immigrants and evaluations of how the national government handled the economy. We investigated priming effects on evaluations of political leaders, as measured by a feeling thermometer ranging from 1 to 20. If the effects of attitudes on evaluations of political leaders have become stronger in the second wave than in the first, this would be evidence of priming. However, an alternative explanation could be that the observed changes are the result of test-effects. In other words, it would not be a consequence of the Summit meeting coverage, but of citizens' participation in the first wave. To control for this, we added two separate predictors to the equations that were not primed by the media and that are therefore expected to have roughly the same effect on evaluations of domestic political leaders in both waves: attitudes toward immigrants and assessments of the government's handling of the economy.[5] With the exception of the Summit meeting itself, no significant events occurred between the two panel waves that could be expected to alter the effects of either of these predictors. If test effects were to occur, they should be equally present in all of the variables.

Operationalizations

The Dependent Variables

The dependent variables in this study are the evaluations of politicians, which were measured by 20-point thermometer scales. We asked respondents to evaluate two key domestic politicians, central to the negotiations at the Summit: the Dutch Prime Minister Wim Kok and the Dutch Foreign Minister Hans van Mierlo. We also asked respondents to evaluate three key international politicians who were central to Summit negotiations: Helmut Kohl, the German Chancellor; Jacques Chirac, the French President; and Tony Blair, the British Prime Minister.

[5] In another round of analyses, religion and left–right self-placement were also included as predictors of evaluations of politicians. These variables rarely exerted significant effects, and by adding them, the substantive results remain the same. Therefore the fuller model is not presented here.

As control measures, we also asked respondents to evaluate three additional domestic politicians who were not in the Dutch government and therefore not involved in the negotiations at the Summit. These politicians consisted of Frits Bolkestein, the parliamentary leader of the Liberal Party (VVD), Jaap de Hoop Scheffer, the parliamentary leader of the Christian Democrat Alliance (CDA), and Paul Rosenmöller, the parliamentary leader of the Green Party. In order to have a control measure of one internationally known politician, we also asked respondents to evaluate US President Bill Clinton, who was also not involved in the European Summit.

The Independent Variables

Our most important independent variable is the general attitude toward the EU, which was measured by a five-item scale. These five items refer to various aspects of European unification: whether unification is generally a good thing, what the benefits are of integration, and what the position is of the smaller and larger states in the EU. These items form a strong unidimensional scale (for details, see Appendix).

Attitudes toward immigrants were measured with four indicators: whether the Dutch should welcome people from abroad, whether immigrants enrich the Dutch culture, and whether there are too many people from Surinam, Morocco, and Turkey in The Netherlands. These items also form a strong scale (see Appendix).

The other control variable is an evaluation of how the government was currently managing the economy. This was measured with a single question: ''how good or bad do you think the government is handling the economy''? Respondents could answer this question by means of a five point scale, which was labeled: ''very bad'' (1), ''bad'' (2), ''neither good, nor bad'' (3), ''good'' (4), and ''very good'' (5).

Moderators of Priming

We included two moderating variables in our analyses: political knowledge and political attentiveness. To measure political knowledge, we asked six factual questions about politics and political leaders in Europe and in The Netherlands. These included names of politicians, functions of politicians, the main topic of the Schengen agreement, and the value of the Euro. Here, the responses were recoded in the dichotomy correct or incorrect. These six items form a strong scale (see Appendix), which runs from 0 (no correct answers) to 6 (all answers correct).

As a means of measuring political attentiveness, we asked nine questions about exposure to different types of news, interest in different types of news, and questions about political discussion. Results of a Mokken scaling analysis (e.g., Jacoby, 1991; Mokken, 1971) for the exposure, interest, and discussion measures demonstrated that they formed a very strong scale. The questions, and the scales they formed, are presented in the Appendix. After the scales

were constructed the values of all independent variables were recoded on a scale from 0 to 1.

Results

For each of the national politicians, and for both waves of the panel, we estimated the following regression equation:

Evaluation$_i$ = b_0 + b_1 (attitudes toward immigrants)$_i$ + b_2 (economic assessments)$_i$ + b_3 (attitudes toward the EU)$_i$ + e_i.

The model predicting evaluations of the non-Dutch political actors excluded the independent variable concerning assessments of the (Dutch) government's economic performance from the equation, because it is not theoretically relevant. If citizens were primed by the Summit, the effects of attitudes toward the EU will be stronger in the second wave than in the first wave (while having the same sign). Another model was also tested in which a number of demographic characteristics were included as control variables, but none had significant effects on evaluations. Since we used panel data, so that the demographic characteristics of the respondents were the same in both waves, we excluded them from the model presented here.

Table 3 displays regression analyses for the five political leaders for whom we expect priming effects to occur. Table 4 displays regression analyses for those actors for whom we expect smaller or no priming effects. Both tables present a model based on pre-Summit attitudes at wave one, and an additional model based on post-Summit attitudes at wave two, to predict evaluations of each political actor. The independent variables for the Dutch political actors included attitudes toward immigrants and assessments of the government's economic performance, which were not expected to change between the first and second waves.

The main point to emerge from Table 3 is that in all five cases, the effect of attitudes toward the EU becomes stronger between the two waves of interviews in the theoretically expected direction. If there had not been an effect of media priming, the likelihood of all five effects becoming stronger (rather than some becoming stronger and some weaker as a consequence of sampling error) would be $0.5^5 = 0.03$. Naturally, we also looked at the significance of the *change in the effect sizes* for all of the independent variables. The change in effect size of attitudes toward the EU on evaluations of the political leaders is statistically significant in two of five cases. It is difficult to explain why the change in effect size is only significant for these two politicians and not for the other three. To some extent this may be due to the fact that media effects tend to be small and that our samples often lack enough statistical power to detect them (see Zaller, 2002). In addition, specific events may have interfered. For instance, Tony Blair vetoed the EU-budget, because he wanted to save the British rebate. It is possible that an increasing positive effect (as a consequence of priming) was neutralized by the fact that EU-supporters did not

Table 3 Explaining evaluations of political leaders for whom priming effects are expected (OLS)

Dependent variables	Independent variables	Unstandardized regression coefficients			
		Before	After	Change	Significance of change[a]
Sympathy for Prime Minister Kok (20-point scale)	Negative attitudes to i mmigrants	–1.64***	–2.13***	–0.49	0.722
	Government economic performance	2.04***	1.83***	–0.20	0.215
	Attitudes toward EU	1.98***	3.40***	1.42	0.035
	Adjusted-R^2 (N)	0.191 (817)	0.204 (817)		
Sympathy for Foreign Secretary Van Mierlo (20-point scale)	Negative attitudes to immigrants	–3.63***	–3.77***	–0.14	0.560
	Government economic performance	1.36***	1.02***	–0.33	0.115
	Attitudes toward EU	3.39***	4.10***	0.70	0.221
	Adjusted-R^2 (N)	0.171 (817)	0.157 (817)		
Sympathy for German Chancellor Kohl (20-point scale)	Negative attitudes to immigrants	0.87	1.11	0.24	0.614
	Attitudes toward EU	4.64***	5.19***	0.55	0.239
	Adjusted-R^2 (N)	0.060 (817)	0.067 (817)		
Sympathy for French President Chirac (20-point scale)	Negative attitudes to immigrants	2.75***	2.70***	–0.04	0.480
	Attitudes toward EU	3.45***	5.10***	1.65	0.030
	Adjusted-R^2 (N)	0.044 (817)	0.069 (817)		
Sympathy for British Prime Minister Blair (20-point scale)	Negative attitudes to immigrants	–0.83	–0.74	0.10	0.440
	Attitudes toward EU	1.96***	2.45***	0.49	0.242
	Adjusted-R^2 (N)	0.027 (817)	0.033 (817)		

* Significant at $p < 0.05$

** Significant at $p < 0.01$

*** Significant at $p < 0.001$ (two-tailed significance)

[a] These probabilities are based on one-tailed significance tests, where the hypothesis to be tested is that the effects of negative attitudes toward immigrants and government economic performance become weaker as a result of the Summit, whereas the effects of attitudes toward the EU become stronger

approve of this veto. Our data do not allow us to test this explanation, however.

A second point to emerge from Table 3 concerns our control variables: attitudes toward immigrants and assessments of the Dutch government's economic performance. The media priming hypothesis leads us to expect that the effect of these variables would lessen, or display no change, in predicting evaluations of political leaders. No clear pattern emerges from these data. Some of the effects become stronger, others become weaker and none of the changes in effect size was statistically significant. Thus, we can conclude that the Summit altered the basis of citizens' evaluations of political leaders who were visible in the news during the Summit. As a result of the Summit, attitudes toward the EU became a more important basis for evaluation, whereas no systematic changes were found in the other considerations.

Table 4 Explaining evaluations of political leaders for whom no priming effects are expected (OLS)

Dependent variables	Independent variables	Unstandardized regression coefficients			
		Before	After	Change	Significance of change[a]
Sympathy for Liberal Party leader Bolkestein (20-point scale)	Negative attitudes to immigrants	5.90***	5.38***	–0.52	0.326
	Government economic performance	0.94**	0.87**	–0.08	0.413
	Attitudes toward EU	1.79*	2.85***	1.06	0.221
	Adjusted-R^2 (N)	0.066 (817)	0.071 (817)		
Sympathy for Christian Democrat leader De Hoop Scheffer (20-point scale)	Negative attitudes to immigrants	2.49***	1.66**	–0.83	0.166
	Government economic performance	0.25	0.09	–0.15	0.284
	Attitudes toward EU	1.88**	2.33***	0.44	0.330
	Adjusted-R^2 (N)	0.027 (817)	0.021 (817)		
Sympathy for Green Party leader Rosenmöller (20-point scale)	Negative attitudes to immigrants	–4.63***	–5.41***	–0.78	0.816
	Government economic performance	0.90***	0.70***	–0.21	0.221
	Attitudes toward EU	0.88	2.02**	1.15	0.085
	Adjusted-R^2 (N)	0.124 (817)	0.147 (817)		
Sympathy for US President Clinton (20-point scale)	Negative attitudes to immigrants	1.62**	1.91***	0.29	0.652
	Attitudes toward EU	4.46***	3.88***	–0.58	0.791
	Adjusted-R^2 (N)	0.069 (817)	0.054 (817)		

* Significant at $p < 0.05$

** Significant at $p < 0.01$

*** Significant at $p < 0.001$ (two-tailed significance)

[a] These probabilities are based on one-tailed significance tests, where the hypothesis to be tested is that the effects of negative attitudes toward immigrants and government economic performance become weaker as a result of the Summit, whereas the effects of attitudes toward the EU become stronger

In order to fully test H1 we will now turn to Table 4. On the basis of H1 we would expect to find priming effects in those cases where politicians appeared in the news in relation with European news (see Table 3), but to find smaller or no priming effects for the other politicians (Table 4). The results in Table 4 generally support our first hypothesis. In three cases the change in effect is in the same direction as in Table 3, and in one case it is in the opposite direction. Moreover, in none of these cases is there a statistically significant change in the effect size of attitudes toward the EU. The same pattern found in Table 3 also emerged in Table 4 for the effects of negative attitudes toward immigrants and government economic performance; namely, that some of the effects weakened in strength after the Summit, whereas others increased in strength. Like in Table 3, none of these changes were significant.

We should thus conclude that Tables 3 and 4 displays clear evidence of priming effects. The effect of attitudes toward the EU has systematically

increased for all those politicians for whom this was expected on the basis of the extent to which they were visible in the news about Europe, whereas no such pattern was found for those politicians who were not visible in the news about Europe.

Moderators of Priming Effects

We have established that the concept of priming can be extended from its previous narrow focus on the most visible politicians in a country, most notably the US President. We demonstrated that the news coverage of an issue not only may alter the bases of evaluation of the Prime Minister or head of state, but that it may also shape public evaluations of a number of other politicians visible in the news. Moreover, we have established that the priming effect is most clear when politicians appear often in the news in connection with the issue that is primed. We now turn to the question of whether some citizens were more likely to be primed than others.[6]

We distinguished two dimensions of political involvement: political attentiveness and political knowledge. To assess whether these variables moderate priming processes, each of the regression models of Tables 3 and 4 were estimated again, but with the inclusion of two interaction terms: one dealt with between political attentiveness and political knowledge on the one hand and attitudes toward the EU on the other hand. Moreover, we also included the main effects of attentiveness and knowledge, in order to obtain unbiased estimates of the interaction effects. Before constructing the interaction variables, all variables were centered around their mean values in order to reduce multicollinearity (e.g., Aiken & West, 1991, p35). As a result, the main effects of the variables can be interpreted as the effect of that variable when the variables with which it interacts are at their mean values (Jaccard, Turissi, & Wan, 1990).

In the first wave of interviews, attitudes toward the EU had a positive effect on evaluations of all political leaders. On the basis of the theory of priming we expected these effects to become stronger (meaning more strongly positive) for those actors that had been often mentioned in news about Europe. On the basis of Krosnick and Brannon's (1993) findings we expected to find a negative interaction effect between political attentiveness and attitudes toward the EU. We expected this effect to have become more negative (H2). Moreover, we

[6] In an earlier stage of this study we have linked the information about media content to the individual level survey data, on the basis of respondent's media use. This did not yield any significant effects, which is not surprising in view of results presented by Zaller (2002). He simulated a change of 5% of the votes for an imaginary candidate in an election, which is only attributable to an effect of media use, and shows that these effects will only turn out to be significant (at $p < 0.05$ in a one-tailed test) in 18% of the samples of 500 respondents and in about 21% of the samples where $N = 1{,}000$. In our study, we have a sample of similar magnitude, and the effects are not expected to be as large as those simulated by Zaller. Moreover, as Table 1 showed, the contents of the different outlets were quite similar, at least in the way they framed news about Europe. If different media report similarly on an issue, it is unlikely that the priming effects will be different when linked to individual media use.

Table 5 Explaining evaluations adding interactions with political attentiveness and political knowledge

Dependent variables	Independent variables	Unstandardized regression coefficients			
		Before	After	Change	Significance of change[a]
Sympathy for Kok (20-point scale)	Negative attitudes to immigrants	–1.31**	–1.68***	–0.37	0.718
	Government economic performance	1.85***	1.71***	–0.14	0.378
	Attitudes toward EU	2.00***	3.39***	1.39	0.038
	Political attentiveness	2.16*	2.74**	0.59	0.660
	Political knowledge	0.88*	0.49	–0.39	0.441
	Political attentiveness × attitudes toward EU	–7.27	–5.18	2.09	0.622
	Political knowledge × attitudes toward EU	1.63	0.22	–1.41	0.695
	R^2 (N)	0.205 (817)	0.216 (817)		
Sympathy for Chirac (20–point scale)	Negative attitudes to immigrants	2.27***	2.09***	–0.18	0.401
	Attitudes toward EU	3.62***	5.33***	1.72	0.033
	Political attentiveness	–0.32	–0.28	0.03	0.984
	Political knowledge	–1.65***	–1.66***	–0.01	0.990
	Political attentiveness × attitudes toward EU	–3.75	–0.62	3.12	0.666
	Political knowledge × attitudes toward EU	–1.18	–1.70	–0.52	0.668
	R^2 (N)	0.066 (817)	0.090 (817)		

* Significant at $p < 0.05$

** Significant at $p < 0.01$

*** Significant at $p < 0.001$ (two-tailed significance)

[a] For changes in the effects of political knowledge and attentiveness, these probabilities are based on two-tailed significance tests. In all other cases these probabilities are based on one-tailed significance tests, where the hypothesis to be tested is that the effects of negative attitudes toward immigrants and government economic performance become weaker in strength as a result of the Summit, whereas the effects of attitudes toward the EU become more strongly positive. On the basis of H2 we expected the interaction effect of political knowledge and attitudes toward the EU to have become more positive, and on the basis of H3 we expected the interaction effect of political attentiveness and attitudes toward the EU to have become more negative

expected a positive interaction effect of political knowledge and attitudes toward the EU, and we expected this interaction effect to have become more positive (H3). Since we have clear expectations on the basis of the literature, we present one-sided significance tests in Table 5 for the changes in effect.

Table 5 shows the results of the analyses for the two politicians that showed significant priming effects (see Table 3): Wim Kok and Jacques Chirac. The results of Table 5 do not lend any support for H2 or H3. In the model to explain sympathy for Wim Kok, there is indeed a negative interaction effect with political attentiveness and a positive one with political knowledge. Contrary to expectations, both interaction effects decrease in strength within the sample. Moreover, neither the interaction effects themselves, nor the change in the

strength of the interaction effects is statistically significant. In the model explaining sympathy for Jacques Chirac, both interaction effects are negative and not significant. The interaction effect of attentiveness and attitudes toward the EU becomes less negative within the sample (as is the case in the model for Wim Kok), whereas the interaction effect with political knowledge becomes more negative (rather than more positive as H3 predicts). Also here, none of the changes in interaction effects are statistically significant.

These analyses were also carried out for the other seven actors represented in Tables 3 and 4. Since no significant interaction effects were found in these analyses, we decided not to exemplify all of the results. For the nine political leaders represented in Tables 3 and 4, we estimated interaction terms with political knowledge and with political attentiveness. Therefore, we analyzed 18 changes in the magnitudes of these interaction effects. None of these were significant, neither in two-sided tests, nor in one-sided tests based on our second and third hypothesis.

We also tested for second order interaction effects with political knowledge × political attentiveness × attitudes toward the EU, which did not return significant interaction effects either. Finally, we tested the models employing other specifications of knowledge and attentiveness, namely in the form of dummy variables, which distinguish between three levels of knowledge and three levels of attentiveness. This generated similar results from the linear specification presented here. Our conclusion is that in the case of the Amsterdam Summit, priming effects did not vary systematically with different levels of knowledge and attentiveness, a non-finding we discuss in more detail in the conclusions.

Aggregate-level Consequences of Individual-level Priming Effects

When politicians are evaluated by different standards, the result may well be that they are assessed more or less favorably. We have found that the relationship between attitudes toward the EU became more strongly positively related to evaluations of Wim Kok and Jacques Chirac (see Table 3). If people feel mainly positive toward the EU, we would expect this to lead to a more positive evaluation of these politicians. However, if people feel

Table 6 Mean evaluation scores of politicians before and after the Summit

	Mean scores before the Summit	Mean scores after the Summit	*N*
Sympathy for Kok	14.32	14.43	817
Sympathy for Van Mierlo	12.28	12.55*	817
Sympathy for Kohl	10.46	10.82*	817
Sympathy for Chirac	7.38	7.84**	817
Sympathy for Blair	12.17	12.12	817

* Difference between means at two waves of the panel is significant with alpha = 0.01

** Difference between means at two waves of the panel is significant with alpha = 0.001

generally negative toward the EU, this would lead them to evaluate these politicians more negatively. Our panel data provide the opportunity to assess the extent to which media priming led to changes at the aggregate-level in the popularity of political leaders.

As a first step toward this end, Table 6 shows the results of a series of paired samples *t*-tests on the evaluations of leaders for whom priming effects were expected, before and after the Summit. The mean evaluations for four of these five political leaders increased in the period in which the priming effects occurred. In three cases these changes are significant: evaluations of the Dutch Foreign Minister Van Mierlo, the German Chancellor Kohl and the French President Chirac all became significantly more positive after the Summit.

We cannot yet conclude that the observed differences are indeed due to a media priming effect and are not the result of other changes between the two waves of the survey, such as changes in the independent variables. As can be seen in Appendix, there was no substantial change in the means of the attitude scales. However, the correlation between attitudes toward the EU at both time points is only 0.66, meaning that the variables measuring EU-attitudes at two time points share only 44% of their variance. So, beneath the aggregate stability in attitudes toward the EU, there is a lot of change (both random and systematic) at the individual level. Even if citizens would evaluate political leaders on the basis of the same criteria, changes in the positions on the independent variable could lead to a change in their sympathy for a leader. Conversely, if people change the weight they attach to different independent variables, while their positions on these independent variables change at the same time, it is not possible to say whether changes in evaluations are due to the changes in positions on the independent variable, or on changes in the weight attached to these predictors. It is even possible that one of these effects neutralizes the other.

So, in order to estimate the consequences of media priming at the aggregate level, we have to disentangle the effects caused by attitude changes from the effects of changes in the criteria used to evaluate leaders. If changes in evaluation scores are due to media priming, then the scores of the leaders will be different as a consequence of them being *evaluated by different standards* in the second wave than in the first wave. In order to assess what the result of this is for the evaluations, we computed the predicted evaluation scores at *t*-1 (the first wave) using the parameter estimates at *t* (the second wave). These predicted values at *t*-1 are the predicted evaluation scores for each politician if *before the Summit he would have been judged by the same standards that operated after the Summit.* In other words, the regression coefficients from the second wave were used to predict the evaluations at the first wave.[7] The results are presented in Table 7.

[7] The predicted scores on the sympathy scale were computed in two steps. In step 1 the regression equation at *t* (post-Summit wave) was estimated for each politician. The parameter estimates of these regressions (as presented in Tables 3, 4) were used to estimate the predicted scores at *t*-1 (before the Summit), with the following equation: $\hat{y}_{t-1} = a_t + b1_t \times X1_{t-1} + b2_t \times X2_{t-1} + b3_t \times X3_{t-1}$. This yields a predicted value of the sympathy rating of each individual respondent (one for each politician). Table 7 presents the means of these predicted values.

Table 7 Mean evaluation scores of politicians before the Summit (*t*-1) and the predicted values at *t*-1 based on the parameter estimates at *t**

	Mean *t*-1	Predicted mean at *t*-1	*N*
Sympathy for Kok	14.32	14.30	817
Sympathy for Van Mierlo	12.28	12.51	817
Sympathy for Kohl	10.46	10.85**	817
Sympathy for Chirac	7.38	7.86***	817
Sympathy for Blair	12.17	12.14	817

* For details see Footnote 7

** Difference between mean and predicted mean is significant with alpha = 0.01

*** Difference between mean and predicted mean is significant with alpha = 0.001

In two cases, significant differences are observed between the actual evaluations before the Summit and the evaluations predicted on the basis of the post-Summit model. These two cases are the German Chancellor Kohl and French President Chirac. Thus, they benefited from the effect that media priming had on their evaluation scores. The news about the Summit meeting led Dutch citizens to evaluate these politicians by different criteria and, as a result, evaluations of these political leaders improved significantly. That said, we found no significant effect of media priming on the aggregate-level evaluation scores—neither observed nor predicted—of Dutch Prime Minister Kok, Dutch Minister of Foreign Affairs Van Mierlo or British Prime Minister Blair.

In combination with Table 3, the results of Table 7 present an interesting puzzle. We found a significant priming effect for Wim Kok, but the fact that he was evaluated by different standards did not affect his popularity. A possible explanation is that while the effect of EU-attitudes became stronger, the effect of government economic performance decreased in strength. In 1999, the Dutch economy was booming and is Wim Kok had benefited from a stronger effect of EU-attitudes, his popularity will have been hurt by the lesser effect of economic evaluations. The model for Helmuth Kohl presents more of a puzzle. Positive attitudes toward the EU and negative attitudes toward immigrants had a stronger effect on his evaluation before than after the Summit meeting. Both changes in effect are not significant (Table 3), yet the estimated sympathy score for Kohl increased by 0.39 of a 20-point scale, which is statistically significant (Table 7). Apparently it is the case that while the two effects did not change significantly in strength, in combination they produced an average change in the dependent variable that is statistically significant. No significant priming effects were found for Tony Blair and for Hans van Mierlo, and it is not surprising therefore that media priming did not alter how they were evaluated.

Perhaps the most important conclusion can be drawn if we compare the results in Table 7 with those in Table 2. The latter table shows that the press evaluated Wim Kok and Tony Blair positively, whereas they evaluated Helmuth Kohl and Jacques Chirac negatively. A naive model of media effects

would lead us to expect that the former two would benefit from a positive press, while the latter two would be hurt by this negative press. Our analyses, however, show that the media priming effects worked just the other way around. Kok and Blair were not affected, whereas Kohl and Chirac benefited, despite a bad press.

Discussion

While our findings on media priming are an almost perfect replication of the design employed by Krosnick and Kinder (1990) and Krosnick and Brannon (1993), our design progresses beyond those in previous studies. We used detailed content analysis data that enabled us to link the issue in the news to the politician who is being evaluated. We also measured attitudes toward issues and politicians for whom media priming effects are not expected to occur. Our study provides information about the extent to which different actors are mentioned in the news *in connection to the issue by which citizens are primed.* Our research design—the combination of a panel (dependent and independent), control variables and media content—provides a strong design for analyzing the priming effects of a major political event.

Krosnick and Kinder (1990) found that when voters are primed to evaluate the President by new issues arising in the news, the effect of other, older issues often diminishes. The explanation is probably that citizens, when asked to evaluate leaders, answer ''off the top of their heads'' (Zaller, 1992). In our study, respondents were searching for relevant cues when asked to evaluate a number of political leaders; this took place in the week after the Summit dominated the media agenda. During this period, many respondents were ''primed'' to think of ''Europe''. As a result of the Summit, attitudes toward the EU became more important predictors for evaluating both key domestic and international political actors involved in the negotiations. Conversely, the effects of other predictors did not change significantly. We established that such media priming effects occurred for actors visible in the news *in connection with the EU*. Media priming effects did *not* occur for four political leaders who were not visible in the news in connection with Europe.

Another way in which our study contributes to the knowledge of priming effects is that it is set in the complex and still largely uncharted territory of multi-party parliamentary Europe. The theory predicts that priming effects do not depend on such contexts, and that they would work equally well when the dependent variable is an evaluation of the main political actor in one's country (like the US President in American studies) as when the dependent variable is of much less political significance to citizens. No studies have confirmed yet that this is the case, because they tend to focus on evaluations of the most important politicians. Our study of the Amsterdam Summit demonstrates that news coverage does indeed alter the basis of evaluations of politicians who are

not prominent figures in national politics. This is not a new theoretical insight, but it does show that the theory of priming is robust. It applies in multiparty contexts and it applies to various kinds of politicians, not only the head of government.

In contrast to previous research, however, our study found *no evidence* in support of the hypothesis that media priming effects occur depending on levels of political knowledge and attentiveness. A possible explanation is that a sample size of 800 respondents is not large enough to detect interaction effects, if such effects are small. Another possibility is that these previous studies examined priming effects of issues that arouse strong emotional responses from citizens, such as wars, the economy, race, and crime. Perhaps priming effects do not vary substantially across knowledge and attentiveness in the case of a low involvement issue such as European integration. Yet, since the precise mechanism for this non-finding is uncertain in the case of our study, more research is needed on this important topic.

A more general question could be raised about naturalistic priming studies such as ours. Recently, an alternative explanation has been proposed for findings in the literature, which have been interpreted as evidence of priming (Jenkins, 2002; Lenz, 2006). The alternative explanation is that through the media coverage, people learned more about the positions of candidates, and that the relationship between evaluations of politicians and the issue became stronger because people adjusted their positions on EU matters to become more in line with those of (preferred) candidates as a result. However, Bannon, Krosnick, and Brannon (2006) have challenged the claim that people adjust their attitudes to make these more consistent with evaluations of political candidates (a process they refer to as rationalization). Neither our survey, nor our content analysis can rule out this alternative explanation, because we have no data on perceptions of issue positions of politicians. So, a more decisive verdict on the learning versus priming hypothesis must await future research.

In addition to studying the process by which the media coverage of the Summit affected evaluations of politicians, we also looked at the aggregate consequences of those individual level processes. We showed that the coverage of the Summit had a measurable effect on the direction of public opinion regarding the political leaders involved. We found that that two of the most visible politicians in the Amsterdam Summit could see their popularity ratings increase significantly as a result of the coverage. The direction of our findings (that opinion became more favorable toward these politicians) may be a consequence of the national favorable context in which the 1997 Summit decisions were being made. It may also be a consequence of the fact that the Summit was concluded successfully and without major disruption. Recently EU politics have become more contested and more politicized. As a consequence, EU summits tend to be marred by protests and even riots. This can be expected to result in less favorable images in the

news, and possibly to more negative public evaluations of the political leaders involved.

Our content analysis showed that the Dutch press evaluated Helmuth Kohl and Jacques Chirac rather negatively. A naive model of media effects would lead us to expect that this would hurt their popularity. Our analyses, however, showed not only that their average sympathy ratings *improved* significantly, but also that this is largely due to media priming effects. This finding confirms how subtle media effects often operate; in the words of Cohen (1963, p13): ''the press...may not be successful much of the time in telling people *what* to think, but it is stunningly successful in telling its readers what to think *about*.'' As a result of the fact that citizens were primed by the media to think about Europe when evaluating Kohl and Chirac, these two politicians became more popular *despite a bad press*.

Appendix

This appendix gives an overview of the results of Mokken scaling analyses, for the four scales measured with multiple items: attitudes toward immigrant, attitudes toward the EU, political knowledge and political attentiveness. In addition to Mokken scaling, we present the reliability of these scales (Cronbach's Alpha).

Mokken (1971) developed a stochastic variant of the deterministic Guttmann scale, based on item-response theory. This method is preferred over better known scaling methods, such as principle components analyses, because it has been demonstrated those methods often yield deceptive and invalid results when applied to ordinal data (Coombs, 1964; Van Schuur, 2003). Jacoby (1991) gives a good introduction to item response theory and to the Mokken model. The most important criterion to evaluate whether items form a unidimensional cumulative scale, is the coefficient of homogeneity (the ''H-coefficient''). According to Mokken (1971) the minimum value for the H-coefficient for items to is 0.30. Values higher than 0.50 indicate a strong scale (see also Van Schuur, 2003).

The items of the scales for attitudes toward the EU and attitudes toward immigrants are statements and respondents are asked to indicate with likert scales to which extent they agree with them. Since some items were phrased positively toward immigrants and toward the EU, and others negatively, we reversed the scales of some of the items. The knowledge items were coded as dummies (1 = correct answer, 0 = wrong or no answer). The attentiveness items have three or four categories, and Mokken scaling is able to handle scales where items have different numbers of categories. After the scales were created we scaled all variables from a minimum value of 0 to a maximum value of 1. Table A1 presents the results of the scaling analyses, as well as the mean scores of all items (when expressed on a 0–1 scale).

Table A1 Results of scaling analyses*

	First wave		Second wave	
	Sample mean	H-coefficient	Sample mean	H-coefficient
Attitudes toward the EU				
Advantages EU membership larger than disadvantages (agree)	0.42	0.52	0.41	0.54
European unification is moving too rapidly (disagree)	0.45	0.56	0.44	0.56
EU is a threat to small countries (disagree)	0.45	0.54	0.46	0.58
European unification is a good thing (agree)	0.48	0.56	0.47	0.60
Only the big countries have a say in European affairs (disagree)	0.52	0.46	0.51	0.50
Scale	0.46	0.53	0.46	0.55
Cronbach's Alpha (N)		0.82 (817)		0.83 (817)
Attitudes toward immigrants				
Too many people from Surinam in NL (agree)	0.56	0.60	0.56	0.64
We should welcome people from abroad (disagree)	0.57	0.60	0.58	0.66
Islamic cultures enrich the Dutch culture (disagree)	0.65	0.62	0.64	0.62
Too many people from Turkey and Morocco in NL (agree)	0.67	0.70	0.67	0.72
Scale	0.61	0.63	0.61	0.66
*Cronbach's Alpha (*N*)*		0.85 (817)		0.86 (817)
Political knowledge				
Knows function of Santer	0.16	0.68	0.22	0.67
Knows fraction leader PvdA	0.38	0.51	0.44	0.50
Knows value of Euro	0.44	0.39	0.53	0.39
Knows minister social affairs	0.49	0.53	0.52	0.55
Knows minister of finance	0.58	0.59	0.67	0.61
Knows subject of Schengen agreement	0.65	0.61	0.69	0.56
Scale	0.45	0.53	0.51	0.53
*Cronbach's Alpha (*N*)*		0.77 (817)		0.77 (817)
Political attentiveness				
Reads about domestic news	0.52	0.66	0.49	0.70
Reads about foreign news	0.51	0.65	0.48	0.71
Reads about European unification	0.44	0.70	0.43	0.74
Talks about domestic news	0.56	0.71	0.54	0.76
Talks about foreign news	0.55	0.69	0.52	0.72
Talks about European unification	0.54	0.65	0.53	0.71
Interested in domestic news	0.53	0.64	0.53	0.70
Interested in foreign news	0.54	0.66	0.50	0.70
Interested in news about European unification	0.54	0.63	0.53	0.67
Scale	0.53	0.67	0.51	0.71
*Cronbach's Alpha (*N*)*		0.93 (817)		0.94 (817)

* All individual items and all scales are measured on a scale ranging from 0 to 1

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