# A Comparative Study of the Role of Media Evaluations:

## German and U.S. Differences and Similarities

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### A Comparative Study of the Role of Media Evaluations:

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An evolving program of scholarship has demonstrated that those who use the news media are able and willing to assess those media on a number of dimensions. For example, audience members evaluate the media in terms of the completeness of the story they tell, the biases they harbor, and fairness of their coverage. Some have termed these "naive" or commonsense theories about how the media operate and about the nature of the news they contain. Growing evidence

exists that these "naive" theories have impact on the ways audience members use the media and the consequences of that use.

For the most part, the research to date examining the consequences of audience member "theories" of how the media operate has been conducted within a single cultural setting. Yet variation among "theories" held by audience members is likely to be somewhat restricted in a single culture, where great commonality in experience with the media should exist and the media themselves are likely to operate in fairly similar ways.

This chapter extends the existing research by examining audience perspectives on the media in a comparative framework that is expected to produce variability in audience assessments of the media. In addition, the paper examines a single context that is expected to produce higher within-system variability than is normal.

Specifically, the chapter compares the evaluations audience members make of the media both in the United States, where the system is nearly fully commercial, with that of the Federal Republic of Germany, where--at the time of the analysis--the system had a viable noncommercial component. In addition, at the time of the analysis, audience members within the Federal Republic of Germany had strikingly different past experiences with the mass media. The study was conducted within a few years of unification of east and west Germany, resulting in a combination of media systems, in the former case, heavily controlled by the state, and, in the latter, free of most state constraints.

The chapter employs a secondary analysis of survey data gathered in 1994 by the Times Mirror Center for the People and the Press, now called the Pew Research Center for the People & the Press, and focuses on the Federal Republic of Germany and the United States.

## Commonsense, "naive" theories: Media Images

A number of writers have posited that those who use the mass media have "theories" about them. McQuail (1994), for example, says "any newspaper reader or television viewer has an implicit theory about the medium in question" (p. 5). The "theory," in McQuail's view, instructs the viewer or reader about how the medium should be read or viewed and enables the reader or viewer to act "consistently and satisfactorily in relation to the media." Kosicki and McLeod (1990) contend that "Readers and viewers of mass communication all have personal, 'commonsense theories' about media and their products" (p. 69). These "theories," in the view of Kosicki and McLeod, are based on experience with the media. It doesn't matter much whether the "theories" are correct or not, Kosicki and McLeod contend. What matters is that the audience members "act on them as if they are true."

In fact, what little is known about audience members knowledge of the media suggests that the "theories," if not exactly incorrect, are at least incomplete and in part uninformed. For example, Becker, Whitney and Collins (1980) found that a quarter of the audience members in a survey in one, large Midwestern community thought a license was required to own a newspaper, while eight in 10 knew that a license was required to own a television station. Large majorities of respondents knew that advertising was the source of most revenue for both television and

newspapers and could explain in general terms how reporters obtained information for stories. Only half, however, could explain the meaning of AP and UPI, but eight in 10 knew that the local media rely on news agencies for non-local news. *The People and the Press* (1986), the first of several detailed studies of the public and the press, concluded that the public has "some understanding" about how the news gets delivered, "less understanding" about the news business (who owns what and who does what), and "general misunderstanding" about press law and regulation (p. 17).

Regardless of the knowledge base behind them, audience "theories" are conceptualized as summaries or conclusions about the media. They can be evaluative, or they can be simple statements of "fact." Kosicki and McLeod have termed these theories "schema" that help audience members organize what they know of the media and their products. They also refer to them as "images" that the audience members have of the media.

The study of evaluations of the news media--particularly in terms of one dimension, credibility-has a long tradition. Whitney (1985) has traced systematic public opinion research on media credibility back to the 1930s, when Gallup and Roper surveys included questions asking respondents if the press was credible and believable. In the Kosicki and McLeod formulation, the concept of media image is much broader. To be sure, the images do include an assessment of news *quality*, in which the media is evaluated in terms of its accuracy and completeness. Audience members also assess whether the news in the media forms--across time--a comprehensive picture of the outside world, that is, whether there is a *pattern* (versus randomness) to news presentation. Another schema, or image, of the news media is that they contain largely *negative content*, i.e., news that is dull, sensationalistic or biased. A fourth image is of the media as *controlling or hegemonic*. In this view, the media are seen as overly powerful and consonant in their messages. Finally, the media can be seen as representing *special interests* rather than the commonweal.

To the extent audience members do have lay "theories" or images, McLeod, Kosicki and Pan (1991) have argued, the audience members can be viewed as active processors of the news. The concept of audience activity has many formulations (Biocca, 1988; Webster and Phalen, 1997). In the context of audience lay "theories," activity suggests cognitive involvement in the processing of media messages that should have at least two consequences. First, the images or naive "theories" should help determine what media--and what combinations of media--audience members use. Second, the images or theories might shape strategies audience members follow in processing the information received from the media.

Audience members might, for example, decide to use the medium they judge to be more credible or to use the medium they judge to be more independent. They also might decide to use more media to gain the most comprehensive picture possible if they see news as patterned and cumulative.

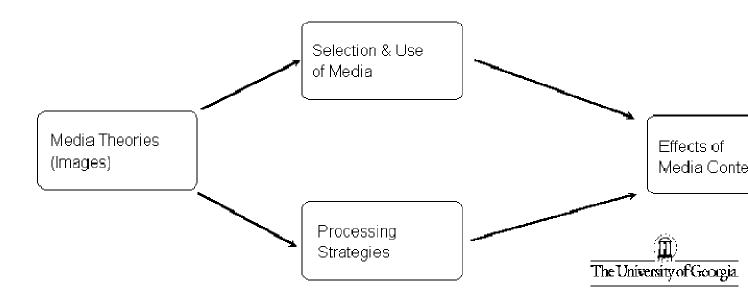
Kosicki and McLeod have identified three processing strategies that audience members might use in response to their images or "theories" about the media. The first they have termed selective scanning. This involves tuning out messages that are not of use or of interest to the audience member. The second strategy is active processing, or going beyond the exact message

to interpret and make sense of it. The third is reflective integration, or the incorporation of the new information into the person's pre-existing cognitive framework.

Media images, by altering the use of the media and influencing the processing strategies used to deal with the messages in those media, could influence the effects of the messages themselves. The influence of images would be indirect, working through media selection and information processes, but it could be important nonetheless.

The model summarizing these arguments about audience media "theories," or images, is shown diagrammatically in Figure 1.

Figure 1. Model of Role of "Naive" Theories



McLeod, Kosicki and Pan (1991), summarizing early research on the impact of media images, report that audience members who believe the media are of high *quality* are--surprisingly--less likely to learn from news in the media than are those with a negative evaluation of the media on this dimension. Those believing that media news content is patterned, on the other hand, are more likely to learn from their exposure to news. Fredin and Kosicki (1989) found that the image that the media were accurate (of quality) was associated positively with learning of positive news from the media but negatively with the learning of negative news. The belief that the media represent special interests was associated negatively with learning of positive news but positively with the learning of negative news. Kosicki, Becker and Fredin (1994) (also see Becker and Kosicki, 1991) found no evidence that media images had any impact on learning arguments for a specific campaign issue, but they found that quality was negatively associated with learning arguments against the issue, while patterning, negative content and special interests were positively associated with the learning of arguments against the issue. Becker and Kosicki (1995) found that the image of media quality was negatively associated with a lack of trust in government, as was the view that media content was patterned. Fredin, Kosicki and Becker (1996) found that patterning was positively associated with attention to political news in television during a political campaign and to political advertisements on television, but generally unrelated to use of political news in newspapers and in news magazines.

### **Comparative Strategy and Expectations**

A country's media system is made up of many components. It can include sophisticated newspaper, magazine, television and radio industries. In large countries, such as the United States and Germany, the national system can be built upon local or regional media systems, each of which retain some distinct characteristics. Citizens in one community may have different experiences with the media serving that community than will citizens in another. Certainly New Yorkers using the media of that community will have a different sense of what the mass media are than will residents of Athens, Georgia, or Columbus, Ohio. Similarly, residents of Berlin are in a somewhat different media environment from the citizens of Stuttgart or Aachen.

Despite these differences within a national media system, differences between national media systems are likely to be even greater. Media systems vary from country to country in terms of how centralized they are, how commercial they are, how dominant one medium is versus another, the cultural traditions supporting the media, and on any number of other characteristics. The U.S. media system is certainly less centralized than is that of Germany and certainly more commercial, though the systems may be becoming more similar than dissimilar in both regards over time. The television system of Germany historically has had a much stronger public service-even educative--orientation than has the television system of the U.S. Radio in Germany carries much more news than does radio in the U.S.--though, once again, the differences are decreasing over time.

The study of audience evaluations of the media can be profitably undertaken in a single media system, as the research conducted to this point has demonstrated. A comparative approach to the study of media images--audience theories of the media--offers the possibility of increased variability and, for this reason, deeper insight into the relationships between audience evaluations of the media and subsequent use of those media as well as processing of the received messages.

Any increased variability ought also contribute to an understanding of the relationship between media images and media effects.

### Method

The 1994 Pew surveys, conducted in both North American and European countries, provide an ideal beginning point for comparative analyses of media images and their consequences. The surveys contained questions asking respondents to evaluate the media as well as standard questions on media use. In addition, they included a series of questions that can be combined to form an index of public affairs knowledge, an appropriate criterion variable that can be used to assess the mediative role of assessments of the mass media on media effects. Included among the North American countries were Canada, the U.S. and Mexico. The European countries studied were France, Germany, Italy, Spain and the U.K.

From the data available, those gathered in two countries, the United States and the Federal Republic of Germany, were singled out for analysis. These two countries were selected because of a key difference between the media in the two countries despite some striking historical linkages and obvious similarities. Though changes have taken place in the German broadcast system in recent years, in early 1994 it was one dominated by noncommercial news operations, in contrast with the nearly completely commercial orientation of the American system. The print media in the two countries, on the hand, are both commercial and both operate in the near absence of regulatory constraint.

In addition, the striking differences in the media systems of the two parts of Germany provide another comparison of importance. Prior to unification in October of 1990, the modern media systems of the two German states were radically different. The West German system was independent of the state. The print system was fully commercial. The broadcast system included restricted commercial messages but was distinguished by its public service, educative orientation. In the east, the media system was an extension of the state apparatus.

In the U.S., telephone interviews were completed with 1,494 adults from Jan. 6 to 13, 1994. Field work was completed by Princeton Survey Research Associates. In Germany, face-to-face interviews were completed with 1,592 adults, 1,040 in the western states and 552 in the east. Interviews were completed in the east between Jan. 6 and 16, 1994. Interviews in the west were completed between Jan. 13 and 23, 1994. Field work was handled by the Emnid Institute in Bielefeld. (2)

Basic comparative findings from the U.S. and German surveys, as well as those in the other six countries surveyed, are included in Kohut, Toth and Bowman (1994). In general, all samples reported relatively high use of newspapers, higher levels of use of television news, and somewhat lower levels of use of radio news. Respondents reported getting most of their national and international news from television, followed by newspapers, and then radio. The U.S. and German respondents answered questions on media use in largely similar ways.

Hollander (1997) has reported a secondary analysis of the Pew Center data focusing on the relationship between media use and knowledge of foreign affairs in six of the eight countries

from the original study. (3) The analysis showed that readership of newspapers was consistently related to knowledge about international issues across the six countries. Somewhat lower relationships existed between listening to radio news and knowledge of international issues. Even lower relationships existed between exposure to television news and knowledge. In fact, the relationship was nonexistent in the U.S. and Spain. In contrast, use of television news was most strongly related to knowledge of international affairs in the German data set. Exposure to television and newspaper news among Germans was in fact nearly equally related to knowledge. Use of radio showed a somewhat lower relationship. In the U.S. sample, newspaper news use showed a much stronger relationship to knowledge than did use of radio; as noted, use of televison news was unrelated to knowledge.

The strategy employed in this chapter in using the Pew Center surveys was of the "data-then-hypotheses" type of secondary analysis, rather than the "hypothesis-then-data" type (Becker, 1989). That is to say, the awareness of the data file stimulated the research undertaking. Items from the survey were examined to determine underlying concepts measured, and those concepts were then fitted into the theoretical context described above. None of the questions included in the survey was designed specifically to test the hypotheses at hand, and other, better questions could have been developed.

The surveys contain numerous questions that measure audience images of the media, but only a few that measure images separately for newspapers, television and radio news. One measure asked respondents to pick among the three media as the best to get the "latest news about important events occurring in this country." (4) Another asked respondents to select from among the three the best way to learn "why these events are occurring." These two items will be treated here as measures of *patterning* of the news since the dimension of evaluation is the ability to make sense of the news product.

Another item on the questionnaires asked respondents to rate the three media (on a list of individuals and organizations) according to believability. (5) The response categories vary from "believe almost nothing" from the medium to "you can believe all or most" of what is contained in the medium. The question is used as a measure of news *quality*.

A fourth item asked respondents to give their opinion of "groups and developments" by indicating if the selected group or development was having "mainly a good influence on the way things are going in this country or mainly a bad influence on the way things are going in this country." Included on the list were newspapers/Tageszeitungen, television network news/Fernsehnachrichten, and radio/Radio. This was treated as a measure of the *controlling* nature of the media. The item was coded so that control was positive, i.e., those individuals who thought the media had a positive influence were scored higher than those thinking the media had a negative influence.

The survey instrument contained a measure of regular readership of a daily newspaper, television news, and radio news. It also contained measures of yesterday use of each medium, including amount of time spent using the medium. Finally, it contained a measure of how the respondent gets news about national and international events in which newspapers, television and radio were coded as responses. (6)

The survey instrument contained no items measuring processing strategies. It did, however, contain five measures of current events knowledge. Respondents were asked to name the president of Russia (Boris Yeltsin), name the country threatening to withdraw from the nuclear non-proliferation treaty (North Korea), identify Boutros Boutros Ghali (then secretary general of the U.N.), name the ethnic group that had conquered much of Bosnia and has surrounded the city of Sarajevo (Serbs), and name the group with whom the Israelis recently reached a peace accord (P.L.O. or Palestinians). Correct answers on these five items were summed to create an index of current events knowledge.

The model predicts that the media images audience members have will lead them to make selections of and use of the media. This is a relative matter, as a medium judged less suitable in comparison to another would be expected to be less often used. To operationalize this hypothesis, the evaluations of the media were compared one-on-one with the measures of use of those media.

The model also predicts that media use should be associated with current events knowledge (as Hollander has already demonstrated with these same data sets). The model posits, however, that there should be continued effects of images to the extent the full paths of measured variables (including processing strategies) are not measured. This hypothesis was operationalized via introduction of the media image measures as predictors of the current events score after media use had been controlled.

No separate predictions were made for the U.S. and Germany. The goal of the comparative analysis is to allow for greater variability in the media environment. The basic expectations remain the same in each setting. Because of the historical differences between the media experiences of Germans in the old and new "Laender," separate analysis was performed in each section of the country.

#### **Findings**

Germans in the new eastern states reported the highest level of regular newspaper readership, with nearly eight in 10 reporting they read a newspaper regularly. In the U.S., the ratio was seven in 10, while it was six in 10 among German respondents in the west. Germans in the east were most likely to have spent at least five minutes reading a newspaper "yesterday," followed by Germans from the west and then U.S. respondents.

U.S. respondents were more likely to report they were regular television news viewers (85%) than was true among eastern and western German respondents (both at 79%). The percentage of respondents watching at least five minutes of television news "yesterday," however, was slightly lower in the U.S. than in either of the German samples. Despite this, the percentage of U.S. respondents reporting watching more than an hour of television news "yesterday" was appreciably higher in the U.S. than it was in either of the German samples.

The percentage of respondents saying they were regular radio news listeners was highest in eastern Germany (67%), followed by respondents in western Germany (57%), and then by respondents in the U.S. (52%). Consistent with this report, the percentage of respondents who

listened to at least five minutes of radio news "yesterday" was highest in the new eastern German states, followed by the old western German states and then the U.S.

The percentage of respondents listing newspapers as one of their top two sources of national and international news was nearly the same in the U.S. and eastern Germany (51% and 52% respectively) and just a bit lower in western Germany (43%). The listing of TV as one of the top two sources was highest in the U.S. (83%), followed by western Germany (73%) and eastern Germany (72%). Selecting radio as a source of national and international news was most common in eastern Germany (32%), followed by western Germany (22%) and then the U.S. (15%).

In all three samples, it is clear, TV is the most often listed source of national and international news, followed by newspapers and then radio. But there are differences. The U.S. sample is clearly more television reliant than either of the German samples. Eastern German respondents are more evenly spread in terms of reliance on the three media. Clearly, in eastern Germany at the time of the survey, radio was seen as a viable news source by an appreciable proportion of the population.

Overall, in terms of stated use of the news media and selection among them, the U.S. can be characterized as television reliant. Yesterday use of newspapers and radio for news was relatively low, and television dominated as source national and international news. Eastern Germany, in contrast, is less oriented toward a single medium. Use of all media is high, and larger percentages of the respondents select newspapers and radio as sources of national and international news. Western Germany lies between the U.S. and eastern Germany. Yesterday use of newspapers and radio news was higher than in the U.S. but lower than in eastern Germany. Selection of newspapers and radio as sources of national and international news was lower than in the eastern Germany, but, at least for radio, higher than in the U.S.

There are differences in the three samples in terms of evaluation of the media as well. The percentage of respondents picking newspapers as the best source of the latest news about important events in the country is highest in western Germany, followed by eastern Germany and then the U.S. Television is picked as the best source by considerably more respondents proportionally in the U.S. than in either section of Germany. Radio is much more likely to be picked in eastern Germany than in western Germany or the U.S. In all three countries, television is the clear favorite.

In the U.S., television is given the edge as the better medium for explaining why important national events are occurring, while in western Germany and eastern Germany newspapers and television are seen as nearly equal in this regard. Radio is given the nod by small and nearly equal percentages in all three samples.

In the U.S., just fewer than two in 10 of the respondents said they believe "all or most" of what appears in all three media--newspapers, television and radio. There is virtually no difference among the evaluations of the three media in this regard. In both German samples, about three in 10 of the respondents evaluate the media as believable at this level, and there are no differences among the media.

Respondents in the U.S. were considerably more likely to attribute a positive effect of all three media than were respondents in the two German samples. Regardless of medium, about seven in 10 of the U.S. respondents said the influence was on the whole "good." In western Germany, about half of the respondents said the influence of newspapers and television was mainly "good," with just a bit more saying the influence of radio was "good." In the eastern German sample, about half of the respondents also said the influence of television was "good," but a slightly lower percentage said the influence of newspapers was at this level and slightly higher percentages rated radio in this way.

In sum, the television reliant nature of the U.S. sample is reflected in the higher evaluation of that medium as the best source of national news and the best way to learn why national events are occurring. On the other hand, all media are rated poorly in terms of credibility and highly in terms of positive influence. The *patterning* evaluation of the medium, in other words, is associated roughly with use, but the *quality* and *control* evaluations are not mirrored in the use and reliance questions.

Similarly, the lowered evaluations of television relative to the evaluations of newspapers in terms of *patterning* in the two German samples seem to be consistent with the use patterns. The more positive evaluations of radio relative to the other media also are consistent with the higher use of that medium in both parts of the Federal Republic.

These first notions about the relationships between media evaluations, or images, and media use are subjected to a more systematic analysis in Tables 1-3. As expected, there is a relationship between images of newspapers and use of that medium in all three samples (Table 1). Evaluations of the daily newspaper as the best medium for learning about ongoing national news, evaluations of newspapers as the medium most able to provide explanations of why those events occurred, evaluations of the credibility of newspapers, and evaluations of the positive influence of the media correlate with the three newspaper use measures, regular use, yesterday use, and selection of newspapers as one of the two top sources for national and international news. The relationships are consistent and reasonably large for the two German samples (with the exception of the influence evaluation in the western German sample). Selection of newspapers as one of the top two sources of national and international news is linked more strongly to evaluation of the patterning nature of those media than it is to credibility (quality) and influence (control). In the U.S. sample, only the patterning evaluations seem to contribute very much to explaining the variance in newspaper use, and even here the relationship are small. The quality measure is, in fact, unrelated to use, and the measure of control is very weakly related to use of that medium.

Much the same pattern is in evidence in Table 2, which focuses on the television measures. In the western German sample, the relationships are slightly less consistent and most ofter weaker than in the eastern German sample. Once again, the *patterning* evaluation seems to be the best predictor of selection of television as the preferred source for news. The U.S. data are striking in their lack of consistency and the weakness of the relationships, four (out of 12) of which are not even statistically significant.

The data are most consistent across samples where radio images and use are concerned (Table 3). In western Germany, eastern Germany, and the U.S., evaluations of radio news in terms of

patterning and quality are clearly related to use of that medium. If respondents think radio is able to provide the best report of national events, best able to explain why those events are occurring, and credible, they are likely to report listening to radio news and relying on it as one of their top two news sources. The measure of influence (controlling) is the exception. It is unrelated to two of the three use measures in the western German sample and to one of the three in the eastern German and U.S. samples.

Tables 4, 5 and 6 summarize a regression analysis in which current events knowledge is treated as the dependent variable and, first, media use, followed by media images, are introduced as the independent or predictor variables. Media use is introduced first, followed by the image variables, so as to be able to determine if the image variables contribute to an understanding of the criterion variable once use has already been entered into the equation.

Knowledge of current events was not equal across the three samples. On average, Germans in the new states of eastern Germany answered 3.5 of the five questions correctly, as did Germans in the old (western) German states. In the U.S., respondents answered only 1.5 of the questions correctly. This discrepancy is not explained by the "European" nature of two of the five items (on the president of Russia and the war in Bosnia). In fact, U.S. respondents scored more poorly than their German counterparts regardless of the item examined, though the differences were more exaggerated where the two European items were concerned. In fact, U.S. respondents had less knowledge of current events--based on these questions--than did respondents in any of the other countries included in the Pew Center survey. (8)

Tables 4, 5 and 6 show the regression analysis for current events knowledge in which that variable is regressed on the three media use measures (Equation 1) as well as on the three measures and the four image measures (Equation 2). (9) As expected, the media use measures do significantly predict knowledge of current events knowledge. This is true for the newspaper measures (Table 4), the television measures (Table 5), and the radio measures (Table 6). In each case, the adjusted multiple R², indexing the amount of total variance explained, is modest, yet statistically significant. The newspaper use measures produce larger multiple R² coefficients in all three samples, and the radio use measures the smallest. In other words, regardless of country, newspaper use is a better predictor of knowledge than use of the other two media. (10)

In all three countries, regular use of newspapers and yesterday use is straightforwardly related to level of current events knowledge (Table 4). Those who use the medium know the most about the issues of the day. The direction of the relationship cannot be positively specified, of course, but it seems likely that use does lead to knowledge, since the knowledge measured is contemporary and would not likely have been acquired through formal education, which took place at an earlier time. In the U.S. sample alone, use of newspapers as the source of national and international events is associated positively with knowledge.

Regular use of television news (in eastern Germany and the U.S.) as well as yesterday use of the medium (in all three samples) also are positively associated with current events knowledge. Those who use the medium are best informed. In the U.S., reliance on television, however, is negatively related to knowledge of current events. The better informed do not depend on that medium for their news.

Radio use generally, as noted, is less strongly related to public affairs knowledge (Table 6). In the German samples, regular use of radio news positively predicts knowledge levels, and in the western German and U.S. samples, yesterday use of radio news positively predicts current events knowledge. In none of the samples does selection of radio as a source predict to current events knowledge.

In the case of newspapers and television, addition of the media image measures to the regression equation results in significant increases in variance explained, regardless of the sample examined (Tables 4 and 5). The same can be said for the inclusion of the radio image measures, excepting in the eastern German sample (Table 6).

Viewing the newspaper as a source of *patterned* news, that is, news that comes together to create a whole, is associated with increased current events knowledge in both countries and in both German samples (Table 4). Even with the variance explained by use of newspapers removed, those who see newspaper news as *patterned* are more likely to gain knowledge than those who do not. In the eastern German and U.S. samples, evaluating the news as credible, i.e., high in quality, is negatively associated with knowledge. In the western German sample, seeing the newspaper as having a positive influence on the country is negatively associated with information gain. It is the critics, in both cases, who show the higher levels of knowledge, once actual use is controlled.

The picture for the television image measures is a bit less consistent (Table 5), but the suggestion is quite clear. Those who see television news as *patterned* as opposed to disjointed are less likely to actually be the ones who are high in current events knowledge than are those critical of the medium on this count. There is some inconsistency here as it relates to the eastern German sample, where only one of the two *patterning* measures produces this effect (the other produces the reverse effect). And only one of the two *patterning* measures is significantly related to knowledge (negatively) in the case of the western German sample, though the direction of the coefficient is consistent for the two measures. Only in the U.S. sample do the *quality* and *controlling* measures show an effect. Here, once again, the effect is negative. It is the critics of the medium who are higher in knowledge.

In the German samples, none of the media images individually predicts to current events knowledge. In the U.S. sample, those who see that medium as *patterned* are more likely to have higher levels of current events knowledge than are those who do not.

### **Concluding Comments**

The analyses presented here are consistent with the theoretical model offered in showing relationships between media images and media use. Use of newspapers, of television news and of radio is predicted by the evaluations audience members have of those media. In general, if the medium is highly evaluated, it is likely to be used routinely and relied on as a source of information. Particularly consistent is the finding that those respondents who see a medium as *patterned*, that is, containing news that comes together to create a whole story as opposed as consisting merely of fragments that add up to little, are more likely to rely on that medium for

their news. This is true whether one is considering newspapers, televison or radio, and whether one is looking at the German or U.S. samples.

There are differences, however, in the three samples. In the U.S., the relationships between evaluations of newspapers and of television are weaker and less consistent than in Germany. There is a suggestion in the data that the U.S. audience is engaged more in habitual behavior than activities driven by an assessment of the medium's ability to deliver the news product. This is particularly true where television is concerned. Use of that medium for news by the German respondents seems to be more premeditated and more directed than in the U.S.

The three samples are most consistent where radio is concerned. In Germany, this medium contains a great deal of news, and use of it is predicted by evaluations of the medium. In the U.S., the medium contains rather little news, yet use of that news appears to be dictated by an assessment of the medium's evaluations. Those in the U.S. who use radio for news seem to do so quite consciously and based on their own "theories" of how that medium operates.

As expected, use of the media do significantly predict to current events knowledge. Such a relationship is specified in the model, and the data are quite consistent with it. Those who use the media are more likely to know what is going on around them. The finding is hardly surprising, but it is heartening to see it confirmed in the comparative analysis presented. Newspaper use, considered alone, is a better predictor of current events knowledge than in television use, which is a better predictor than radio use. This is true, regardless of whether the two German or the U.S. sample is examined. In general, however, these variables have less predictive power in the case of the western German sample than of the eastern German or U.S. samples.

Clearly, media images--the theories audience members have about the media--contribute to an understanding of the consequence of media use, even if the effects of actual exposure are controlled. This is consistent with the model posited. The ways in which these images help to explain media effects, however, are complex. For example, those who see newspaper news reports as *patterned*, that is, part of a complex but integratable whole, are more likely to be those high in current events knowledge than are those who don't hold this view. In contrast, those who see television news as *patterned* are less likely to be those who are high in current events knowledge. The suggestion is that television news really is more fragmented than is newspaper news, and seeing it otherwise is associated with decreased learning from its content.

Except in the case of radio, the media images do more to explain current events knowledge--once exposure to the medium has been controlled--in the U.S. sample than in either of the German samples. It may well be, given the nature of news in the U.S., that more is required to make sense of and gain from exposure to it. The suggestion, particularly in the U.S. sample, that the media critics are the ones who are most knowledgeable about current events, is wholly consistent with this notion.

In no case, given the lack of measures of processing variables, is it possible to argue that images would have had a lasting effect once they have influenced media use and processing activities. The data available simple did not allow for a test of that part of the model.

Though the analytic strategy was comparative, there were no expectations of differential relationships in the three samples. Nonetheless, the data do suggest that media use is more influenced by media images in Germany than in the U.S. German use of the media seems to be a bit more directed and, in at least a certain sense of the term, more "serious" than in the U.S.

The analyses undertaken are limited by the measures available in the data sets, gathered by others for different purposes. Yet they do suggest that media images are important elements in understanding media use and media effects. In this way, the analyses extend the work done earlier, largely in the U.S. context. The idea that audience members have "naive" theories and that those "theories" play a role in understanding media behavior and media effects has gained, through this work, additional generalizability.

#### References

Becker, L.B. (1989). Secondary analysis. In G.H. Stempel III & B.H. Westley (eds.), *Research Methods in Mass Communication* (2<sup>nd</sup> ed.) (pp. 247-261). Englewood Cliffs, NJ: Prentice Hall.

Becker, L.B., & Kosicki, J. (1991). Zum Verständnis der Sender-Empfänger-Transaktion. Einige historische und aktuelle Anmerkungen zur amerikanischen Wirkungsforschung und der Versuch einer transaktionalen Analyse. In W. Früh (ed.), *Medienwirkungen: Das dynamischtransaktionale Modell* (pp. 193-213). Opladen: Westdeutscher Verlag.

Becker, L.B., & Kosicki, G.M. (1995). Understanding the message-producer/message-receiver transaction. In P. Wasburn (ed.), *Research in Political Sociology Vol.* 7 (pp. 33-62). Greenwich, CT: JAI Press.

Becker, L.B., Whitney, D.C., & Collins, E.L. (1980). Public understanding of how the news media operate. *Journalism Quarterly*, 57, 571-578; 605.

Biocca. F.A. (1988). Opposing conceptualizations of the audience: The active and passive hemispheres of mass communication theory. In J.A. Anderson (ed.), *Communication Yearbook 11* (pp. 51-80). Newbury Park, CA: Sage.

Fredin, E.S., & Kosicki, G.M. (1989). Cognitions and attitudes about community: Compensating for media images. *Journalism Quarterly*, 66, 571-578.

Fredin, E.S., Kosicki, G.M., & Becker, L.B. (1996). Cognitive strategies for media use during a presidential campaign. *Political Communication*, 13, 23.42.

Hollander, B.A. (1997). Television news exposure and foreign affairs knowledge. *Gazette*, 59, 151-161.

Kohut, A., Toth, R.C., & Bowman, C. (1994). *Mixed messages about press freedom on both sides of Atlantic*. Washington: Times Mirror Center for The People & The Press.

Kosicki, G.M., & McLeod, J.M. (1990). Learning from political news: Effects of media images and information-processing strategies. In S. Kraus (ed.), *Mass Communication and Political Information Processing* (pp. 69-83). Hillsdale, N.J.: Lawrence Erlbaum Associates.

Kosicki, G.M., Becker, L.B., & Fredin, E.S. (1994). Buses and ballots: The role of media images in a local election. *Journalism Quarterly*, 71, 76-89.

McLeod, J.M., Kosicki, G.M., & Pan, Z. (1991). On understanding and misunderstanding media effects. In J. Curran & M.Gurevitch (eds.), (pp. 235-266). London: Edward Arnold.

McQuail, D. (1994). Mass Communication Theory (3<sup>rd</sup> ed.). London: Sage.

Schulz, W. (1992). European media systems in transition: General trends and modifying conditions. *Gazette*, 49, 23-40.

The People & the Press. (1986). Washington: Times Mirror.

Webster, J.G., & Phalen, P.F. (1997). The mass audience. Mahwah, NJ: Lawrence Erlbaum.

Whitney, D.C. (1985). *Americans' experience with the news media: A fifty-year review*. New York: Gannett Center for Media Studies.

### **Endnotes**

1. For an excellent discussion of how characteristics of a country's media system perpetuate themselves in period of change, see Schulz (1992).

- 2. Return or completion rates were not reported in the Kohut, Toth and Bowman (1994).
- 3. Italy and Mexico were dropped from the study.
- 4. The question used the terms Newspaper/Tageszeitung, TV/Fernsehen, and Radio/Radio.
- 5. The question used the descriptor "television network news" in the US but only "Fernsehennachrichten" in Germany. The item listed "your newspaper" and "radio news" in the U.S. and "Ihre Tageszeitung" and "Radionachrichten" in Germany.
- 6. Coding of responses to the image and media use variables is detailed in the notes of Tables 1-6.
- 7. In these comparisons, the data are weighted to reflect population characteristics. The weights are those provided by in the data files as released by the Pew Center. In all remaining analyses, unweighted data are used, as relationships, rather than levels, are of prime concern.
- 8. According to the Kohut, Toth and Bowman (1994) report, the percentage of respondents not able to answer correctly any of the five questions was, by country, Germany (3%), Italy (18%), UK (22%), France (23%), Canada (27%), Spain (32%) and the U.S. (37%). No measure was provided for Mexico.
- 9. No controls for antecedents of media images and media use are employed here so as to focus attention on the relationships between the media variables and public affairs knowledge, as specified in the theoretical model offered. Controls for such demographic characteristics of the respondents as education might well reduce the relationships shown here and, in so doing, lead to an underestimation of the effects of the media variables, which would be expected to intervene between education (and other demographics) and public affairs knowledge.
- 10. The standard error terms associated with the regression coefficients in the eastern German sample, as shown in Tables 4, 5 and 6, are generally larger than the error terms in western Germany and the U.S. Why this is the case is not clear, but the increased variability is worthy of note.
- 11. Such an analysis was the central focus of the Hollander (1997) analysis of these data. The tables shown here make more precise the nature of that relationship in the context of the U.S. and two German samples, which Hollander did not analyze separately.
- 12. It is important to keep in mind that the contributions of the media variables were examined in isolation from each other. Hollander (1997), however, also reports a lower overall R<sup>2</sup> for his regression analysis in the German sample (combined) than in the U.S. sample. The equation reported included newspaper, television and radio exposure as well as age, income, gender and education.
- 13. The analytic strategy--consistent with the model--gives priority to the media use measures in the analysis. The image variables, had they been entered first, could well have predicted public

affairs knowledge as well as or better than the use measures. Clearly the preferred strategy in studying media effects is to include both use and image measures in the analysis.

14. No direct effects of images are, in fact, predicted by the model, excepting in the case where media processing strategies are unmeasured, as they are in this analysis.

Table 1: Correlations among Newspaper Use and Image Measures\*

## Western Germany

	REG	TROT	COUNCE	DEST	URY	CRED	DIFL
Regular use	1.000						
Testerday use	.204**	1.000					
Course of neve	.217**	.000**	1.000				
Best source	.110**	. 100 **	.000**	1.000			
Emplains 'Thy'	.118**	.201	.064**	.460**	1.000		
Credibility	. 184**	.245**	.214**	. 186**	.178**	1.000	
Influence	.046	. 181**	. 100**	.09944	.084**	. 184**	1.000
Eastern Germany							
	REG	TROT	600MCB	BEST	SET	CRED	DIFL.
Regular use	1.000						
Testerday use	.412**	1.000					
Source of seve	.051**	.200**	1.000				
Best source	.117**	.140**	.000**	1.000			
Emplains 'Thy'	.201**	. 176**	.270**	.018**	1.000		
Credibility	.274**	. 187**	. 178 **	. 108**	.223^*	1.000	
Influence	. 184**	. 102 **	. 178 **	.076*	.101**	.010**	1.000
United States							
	R36	TROT	600MCH	BEST	<b>SET</b>	CRED	DIFL
Regular use	1.000						
Testerday use	.480**	1.000					
Course of marr	.070**	.250**	1.000				
Best source	.074**	.042**	.110**	1.000			
Emplains 'Thy'	.092 **	.072 **	. 127**	. 100**	1.000		
Credibility	.062 *	000	.029	.064**	.112**	1.000	
Influence	.080**	.048*	.041**	.044**	.188**	.244**	1.000

<sup>\*\*</sup> Correlation is significant at the 0.01 level (1-tailed).

<sup>\*</sup> Correlation is significant at the 0.06 level (1-tailed).

## Table 2 Correlations among Television Use and Image Measures\*



## Whaten Germany

		NC+	TEST	30 WACE	3637		op.	CERL.
	Regular toe	1.00e						
	Terrenday was	.465**	1.000					
	Secret of reco	.#2700	.27400	1.000				
	Best sesses	.100**	.15400	. 07400	1.000			
	Replains 'May'	.0400	.040	.27100	.442 **	1.000		
	Cool ib il by	.140**	.11100	.206**	.283 ***	.14200	1.000	
	Indianes	.144**	.100**	.114**	.164 **	.0010	.06700	L.000
8	ostom Gamany							
		184	-	60 West	3007	-	<b>an</b>	ter.
	Regular use	1.000						
	Terrenday was	.4444	1.000					
	forces of none	.01444	.00100	1.000				
	Bart resses	.660**	.17500	.002**	1.000			
	Replains 'May'	.14700	. 10000	.estee	.000	1.000		
	Could bill by	.176**	.118**	.124**	.184 **	.441	1.000	
	Misee	.1600	.142**	.100***	.112 **	.17600	.0 1000	L.000
U	rited States							
		104	-	00 TRCE	3061	-	<b></b>	COTT.
	Regular tre	1.000						
	Testectay use	.426**	1.000					
	former of room	.024**	.631**	1.000				
	Best resses	.10400	.000**	.20100	1.000			
	Supilates 'She'	.000	041	.100**	.614 **	1.000		
	Cool ib il by	.04 100	.014	.124**	.104 **	.140**	1.000	
	indi sense	.04900	.007	. 10000	.000 **	.07.500		1.000

<sup>&</sup>quot; Correlation is significant at the 0.01 level (1-tailed).

<sup>\*</sup> Correlation to significant at the 0.05 level (1-tailed).

Table 3: Correlations among Radio Use and Image Measures\*

Western Germany	1				TheUr	ntycrattycf(	icoryta
	REG	TEST	SOURCE	BEST	UMY	CRED	DIFL
Regular use	1.000						
Testerday use	.844**	1.000					
Source of mers	.237**	.310**	1.000				
Best source	.140**	.170**	.000	1.000			
Empletes 'Why'	. 109**	. 142 **	.000**	.046**	1.000		
Credibility	.162**	.100**	. 100**	.055*	.065*	1.000	
Indivence	. 180**	.000	.002	007	.018	.201**	1.000
Eastern Germany							
	RE6	TROT	SOURCE	<b>D207</b>	<b>SET</b>	CRED	DIFL
Regular use	1.000						
Testerday use	.406**	1.000					
fourte of news	.44544	. 176 **	1.000				
Best source	. 190 **	. 100**	.412 **	1.000			
Empletes 'Why'	. 109**	. 10000	. 105**	.041**	1.000		
Credibility	.217**	. 100**	.110**	. 102**	.117**	1.000	
Influence	.144**	.110**	.087	.0984	.087	.844**	1.000
United States							
	REG	THET	CONCE	DEST	<b>SET</b>	CRED	DIFL.
Regular use	1.000						
Testerday use	.560**	1.000					
Course of sers	.274**	.011**	1.000				
Bast source	.217**	.240**	.251**	1.000			
Empletes 'Why'	. 197**	. 191**	.200**	.044**	1.000		
Credibility	.140**	. 100**	.000**	.095**	.081**	1.000	
Influence	. 100 **	. 120**	.040	.00144	.0024	.185**	1.000

<sup>ightharpoonup</sup> Correlation is significant at the 0.01 level (1-tailed).



Table 4: Regression of Newspaper Measures on Public Affairs Knowledge<sup>a</sup>

Variable		Westerr	Western Germany		Eastern Germany		United States	
		EQ1	EQ2	EQ1	EQ2	EQ1	EQ2	
Regular	В	.224**	.193*	.596**	.623**	.347**	.336*	
use	SE	.088	.088	.170	.172	.070	.069	
Yesterday	В	.107**	.009*	.145**	.139**	.110**	.104**	
use	SE	.022	.023	.040	.040	.013	.012	
Source of	В	.006	.006	004	005	.220**	.161**	
news	SE	.090	.095	.128	.136	.058	.058	
Best	В		.153		254		008	
source	SE		.108		.166		.075	
Explains	В		.294**		.491**		.608**	
'Why'	SE		.094		.129		.056	
Cred-	В		.007		140*		007**	
ibility	SE		.047		.060		.023	
Influence	В		159*		001		.001	
	SE		.069		.109		.039	
Adjust. R <sup>2</sup>		.041**	.059**°	.068**	.092**°	.069**	.103**°	

<sup>\*</sup> Significant at the 0.05 level (1-tailed).

\*\* Significant at the 0.01 level (1-tailed).

<sup>b</sup> Change in R<sup>2</sup> is significant at the .05 level

<sup>c</sup> Change in R<sup>2</sup> is significant at the .01 level.

<sup>a</sup>Main Table entries are unstandardized regression coefficients and the standard error of those coefficients. R<sup>2</sup> is adjusted for the number of variables in the equation. The variables are:

(REG) Read, view or listen "regularly"; 1=no; 2=yes.

(YEST) Read, viewed or listened yesterday; 1=less than 5 minutes; 7=more than 1 hour.

(SOURCE) Source of national and international news; 1=no; 2=yes.

(BEST) Medium judged to be "best way" to learn about national events; 1=no; 2=yes.

(WHY) Medium judged to be "best way" to learn why national events occur; 1=no; 2=yes.

(CRED) Believability of medium; 1=almost nothing, 2=little, 3=don't know, 4=some, 5=all or most.

(INFL) Medium having good or bad influence on country; 1=bad, 2=neither, both, don't know, 3=good.



Table 5: Regression of Television Measures on Public Affairs Knowledge<sup>a</sup>

Variable	Entry	Western Germany		Eastern Germany		United States	
		EQ1	EQ2	EQ1	EQ2	EQ1	EQ2
Regular	В	.199	.188	.574**	.569**	.177*	.232**
use	SE	.114	.114	.187	.189	.087	.085
Yesterday	В	.111**	.115**	.114**	.119**	.010**	.009**

use	SE	.026	.026	.038	.038	.012	.011
Source of	В	.007	.193	300	253	764**	519**
news	SE	.099	.106	.158	.164	.076	.076
Best	В		263**		.232		143*
source	SE		.098		.136		.063
Explains	В		122		366**		649**
'Why'	SE		.094		.134		.055
Cred-	В		008		.002		008**
ibility	SE		.054		.072		.025
Influence	В		004		160		140**
	SE		.073		.111		.036
Adjust. R <sup>2</sup>		.034**	.043** <sup>c</sup>	.048**	.061** <sup>b</sup>	.046**	.107** <sup>c</sup>

(REG) Read, view or listen "regularly"; 1=no; 2=yes.

(YEST) Read, viewed or listened yesterday; 1=less than 5 minutes; 7=more than 1 hour.

(SOURCE) Source of national and international news; 1=no; 2=yes.

<sup>\*</sup> Significant at the 0.05 level (1-tailed).

<sup>\*\*</sup> Significant at the 0.01 level (1-tailed).

<sup>&</sup>lt;sup>b</sup> Change in R<sup>2</sup> is significant at the .05 level

<sup>&</sup>lt;sup>c</sup> Change in R<sup>2</sup> is significant at the .01 level.

<sup>&</sup>lt;sup>a</sup>Main Table entries are unstandardized regression coefficients and the standard error of those coefficients. R<sup>2</sup> is adjusted for the number of variables in the equation. The variables are:

(BEST) Medium judged to be "best way" to learn about national events; 1=no; 2=yes.

(WHY) Medium judged to be "best way" to learn why national events occur; 1=no; 2=yes.

(CRED) Believability of medium; 1=almost nothing, 2=little, 3=don't know, 4=some, 5=all or most.

(INFL) Medium having good or bad influence on country; 1=bad, 2=neither, both, don't know, 3=good.



Table 6: Regression of Radio Measures on Public Affairs Knowledge<sup>a</sup>

Variable Entry		Wester	Western Germany		Eastern Germany		United States	
		EQ1	EQ2	EQ1	EQ2	EQ1	EQ2	
Regular	В	.245*	.240*	.319*	.382*	.005	.003	
use	SE	.103	.104	.150	.151	.067	.067	
Yesterday	В	000	000	.010*	.117**	.010**	.009**	
use	SE	.031	.031	.040	.040	.014	.015	
Source of	В	182	195	137	.001	006	122	
news	SE	.108	.118	.134	.144	.082	.084	
Best	В		.127		243		.300**	
source	SE		.147		.163		.109	
Explains	В		250		428		.132	
'Why'	SE		.205		.236		.133	
Cred-	В		.005		008		.004	
ibility	SE		.049		.070		.026	
Influence	В		.005		173		.003	
	SE		.081		.117		.041	

Adjust. R <sup>2</sup> 006*	.005 .029**	.046**° .021**	.024** <sup>c</sup>
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- \* Significant at the 0.05 level (1-tailed).
- \*\* Significant at the 0.01 level (1-tailed).
- <sup>b</sup> Change in R<sup>2</sup> is significant at the .05 level
- <sup>c</sup> Change in R<sup>2</sup> is significant at the .01 level.

<sup>a</sup>Main Table entries are unstandardized regression coefficients and the standard error of those coefficients. R<sup>2</sup> is adjusted for the number of variables in the equation. The variables are:

(REG) Read, view or listen "regularly"; 1=no; 2=yes.

(YEST) Read, viewed or listened yesterday; 1=less than 5 minutes; 7=more than 1 hour.

(SOURCE) Source of national and international news; 1=no; 2=yes.

(BEST) Medium judged to be "best way" to learn about national events; 1=no; 2=yes.

(WHY) Medium judged to be "best way" to learn why national events occur; 1=no; 2=yes.

(CRED) Believability of medium; 1=almost nothing, 2=little, 3=don't know, 4=some, 5=all or most.

(INFL) Medium having good or bad influence on country; 1=bad, 2=neither, both, don't know, 3=good.