A survey of 548 male and female household heads in Columbus, Ohio, was conducted in 1977 to discover the effects of dependency on different media on levels of trust toward government, knowledge about government, and perceived knowledge about government at both local and national levels. It was hypothesized that newspaper dependency is positively associated with increased knowledge, perceived comprehension, and trust at both local and national levels even when controls for age and education are included. It was also hypothesized that television dependency is negatively associated with the same variables. In general, these hypotheses held except that at the national level, knowledge was found to be related to perceived comprehension but not to trust. It appears that age and education do interact with the variables and dependency so that among younger sample members with a low education level, dependency does not produce the effects on knowledge, perceived comprehension, and trust that it does in other sample members. (TJ)
THE EFFECTS OF MEDIA DEPENDENCIES ON AUDIENCE ASSESSMENT OF GOVERNMENT

By

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The Effects of Media Dependencies on Audience Assessment of Government

DeFleur and Ball-Rokeach (1975) posit that as the social system becomes more complex and the informal channels of communication become disrupted, members of the society become more dependent on the mass media. The result is that members of modern urban-industrialized societies are becoming almost totally dependent on the media for even rudimentary pieces of information.

Because of this dependency, DeFleur and Ball-Rokeach argue, the media are quite powerful in producing cognitive, affective and behavioral changes in audience members. Proponents of a limited effects model, such as Klapper (1960), have been in error, the two authors argue, because they have been looking for short-term effects resulting from rather specific messages. Recent research on agenda-setting (McCombs and Shaw, 1972) and information holding (Tichenor, Donohue and Olien, 1970; Becker, McCombs and McLeod, 1975) is interpreted as supportive of this effects position.

In the DeFleur and Ball-Rokeach model, media dependence—which can be defined as an individual state of reliance on or subordination to the media—is a contingent or at least a contributory condition for producing media effects. In fact, the agenda-setting function of the media, there is some evidence to support this position. McLeod, Becker and Byrnes (1974) found that those newspaper readers most dependent
on that medium for their news were most affected by the issue agenda it presented.

Individuals within a complex society, however, differ not only in terms of their dependence on the media as a whole, but also in terms of their dependence on specific media. In other words, it is possible to conceive of people as varying according to their dependence on newspapers, their dependence on television and their dependence on other media sources. National data reported by Roper (1977) suggest that increasingly people in the United States are relying on television for their news, though Stevenson and White (1977), among others, have argued that the Roper methodology exaggerates television dominance over newspapers.

The preliminary evidence is that dependence on specific media sources is a critical variable in understanding media effects. Robinson (1975) has demonstrated that persons relying on television for their news are more likely to think they cannot understand politics than those not so dependent on that medium. Television dependent persons also are more likely to think governmental leaders are crooked and to think members of Congress tend to lose touch with their constituents once they are elected. The findings hold after education of the respondents is used as a control.

McLeod, Brown, Becker and Ziemke (1977) found that young persons following the Senate Watergate hearings in the print media were more likely to see the scandal as atypical and to
absolve the political system of guilt than those persons not dependent on that medium. Robinson (1974) similarly found that persons watching the televised hearings showed an increased hostility to government and an increasing sense of personal perplexity. In fact, television dependent persons were less knowledgeable about the scandal than newspaper dependent respondents.

Becker, Sobowale and Casey (1978) demonstrated that television dependency was associated with lower levels of knowledge about local affairs while newspaper dependency showed the reverse relationship. There was some slight evidence, as well, that persons dependent on newspapers were more favorably inclined toward local governmental officials than persons not newspaper dependent. Television dependent persons tended to be less favorable towards and trusting in local leaders than those not dependent on that medium.

The news presentations of the various media are strikingly different in at least two ways. First, they employ different formats for presentation of the news. And second, they sometimes present different content or differing versions of the news.

That the media employ different formats is obvious even to the casual observer. Television news is heavily dependent on visual messages. The audio portions are presented or at least moderated by a recognizable anchorperson. Radio, of course, presents only audio messages. The print media present their news primarily via visual representations of the text.
Some of the content differences are no less obvious. Clearly, the print media provide more detail, though the broadcast media, through use of lead-ins or 'teasers' and rebroadcasts of the same story, can present more repetitious emphasis on selected stories. Patterson and McClure, in their study of the 1972 presidential election, found that television news focused on the hoopla of the campaign at the expense of presentation of the issues and the attributes of the candidates. Newspapers, on the other hand, have been found by Graber (1971, 1976) to focus on personal qualities of the candidates as well as dramatic issues and political ideology. Television and newspapers also have been found to emphasize slightly different issues when they cover the campaign (Patterson and McClure, 1976; Shaw and Clemmer, 1977).

Robinson (1975) has argued that compared with newspaper news, television news is more negative and conflictual, focusing on images and impressions rather than substantive data, and is artificially balanced to present both sides of issues even when one side is clearly unequal to another. Problems are emphasized at the expense of solutions, Robinson contends, and national issues are given more attention than local problems.

Such differences in news presentations, of course would help to explain the observed effects of media or source dependency on such things as information level and attitudes toward government. Persons getting a fragmented and incomplete presentation of the world about them would be expected to know
less about it than persons getting fuller, more balanced presentations. And the fragmented presentations might also produce negative feelings or reactions to government. In other words, by emphasizing the disruptive, negative side of issues, the media may lead audience members to negatively assess their government and its leaders. To the extent television does in fact more often present this type of news, television viewers would be expected to be more negative toward government than newspaper readers, as the existing data suggest they are.

Yet another explanation exists for the observed differences between television and newspaper dependent audience members. It may well be that audience members in general are less well able to process information provided them by the broadcast media because of such factors as lack of training or experience. While the broadcast media are clearly strong influences on the lives of all audience members, the educational system as well as other traditions developed prior to the advent of the broadcast media remain heavily dependent on the printed word for dissemination of information. In other words, audience members are generally instructed in information acquisition and processing via the older, print media. It may be that the observed differences between television and newspaper audience members reflect this difference in training or other similar information processing variables.
Hypotheses

While the existing research argues for the importance of studying the effects of media dependencies on audience assessment of government, it leaves several important questions unanswered. First, while there is evidence that persons dependent on television are less knowledgeable about public affairs on both the national (Robinson, 1974) and local levels (Becker, Sobowale and Casey, 1978), the evidence for the effects on evaluations of government are not consistent.

Robinson (1975), using national election data from the Center for Political Studies of the University of Michigan, has shown that television dependent persons are more likely than newspaper dependent persons to doubt their own abilities to comprehend national affairs. Television dependent persons also are more likely to distrust government leaders, according to the Robinson analysis. Becker, Sobowale and Casey (1978), however, were able to show effects of dependency on trust only on the local level and even there, the relationships were slight and somewhat inconsistent. No measure of audience members' doubt of their ability to comprehend local affairs was used in the Becker, Sobowale and Casey study.

The finding that the effects of dependency may be strongest on the local level is not surprising given the general state of local broadcast news production. While newspapers historically have been local in nature, the broadcast media have relied on the national networks for leadership in news gathering and
dissemination. The result is that flaws observed in network news production—the emphasis on the peripheral aspects of issues and the lack of backgrounding, for example—often are exaggerated on the local level. Television dependency ought to be even more strongly associated with lower levels of knowledge and a lack of trust in leaders at the local level than at the national.

The finding that knowledge is more strongly associated with dependency than the attitudinal measures of trust in government may be explained in terms of differential intervening processes. Dependency would be expected to have a rather direct effect on knowledge level. The effects on attitudinal evaluation of government, on the other hand, may be both direct and through other variables, such as knowledge. In other words, persons may become less trusting in government as a result of dependency in part because they know less about it.

The attitudinal effects of dependency also would be expected to be stronger for measures which tap the audience members' perceptions of their ability to deal with government or comprehend its behaviors than for more general measures of trust in leadership. This would be expected to be true because perceived comprehension is more directly linkable to the media and the information they provide. Any connection between that information and trust would be more indirect and, therefore, weaker.

These explanations of the existing findings can be restated as the following research hypotheses.
1. Newspaper dependency is positively associated with increased knowledge, perceived comprehension and trust in government. Television dependency is negatively associated with these variables.

2. The relationships posited in hypothesis 1 should be strongest for knowledge and weakest for trust.

3. Knowledge should be positively associated with perceived comprehension and trust.

4. These relationships should hold on both the local and national levels, but should be strongest on the local level.

5. The relationships should hold after controls for age and education.

Age and education are necessary controls because past research shows that these two variables are associated with dependency, (higher educated and older audience members are more newspaper and less television dependent) as well as with knowledge and trust (the higher educated and older are more knowledgeable and more trusting).

These hypotheses are formulated in terms of the two dominant news media both because of their dominance and because they are prototypical. In general, the effects would be expected to hold were other representatives of the print or broadcast sector chosen, though no test of that expectation will be provided here.

Methods

To test the theoretical model represented by the five hypotheses listed above a study was fielded in Franklin County,
Ohio, in the Fall of 1977. Columbus, the state capital, is the only major city in the central Ohio county which is home to approximately one million persons. The county is served by two editorially competing (though jointly operated) newspapers, three commercial and one public television outlet, 17 radio stations and a monthly city magazine. The growing metropolitan area provides more white-collar employment than the national average, though considerable industrial employment is present.

In October of 1977, 548 interviews were conducted with a proportional sample of male and female household heads selected probabilistically from the telephone directory. Included in the telephone interview schedule were measures of media dependency as well as knowledge about local and national government, perceived comprehension of government and trust in leaders.

The following questions were used in creating the dependency indices:

1. Where do you usually get most of your news about what's going on in Washington and the federal government (the city or township you live in) -- from the newspapers, radio, television, magazines, just talking to people, or where?

2. Many people don't get to read a newspaper every day. About how many days a week do you read a newspaper?

3. When you are reading a newspaper and you come across items on government in Washington (on local government), do you pay close attention, some attention, or almost no attention to them?
4. About how many days a week do you watch the national early evening network news broadcasts (local early evening news broadcasts)?

A person was considered to be high in newspaper dependency for local news if he or she reported relying on that medium, reading a newspaper at least six days a week, paying at least some attention to local news, and watching national television news less than six days a week. A person doing none of these things was low in dependency; persons doing some of these things received moderate scores. Newspaper dependency for national news was created in a parallel fashion, while television dependency was created in the reverse fashion. In this way each measure of dependency included (a) reported reliance, (b) reported behavior, and (c) weighting for exclusivity.

Four questions were used to create the index of knowledge of local affairs. Respondents were first asked to name the mayor of Columbus and then to indicate his party affiliation. They also were asked to provide information on two local issues being discussed in the media at the time of the study: school busing and solid waste disposal. The busing question simply asked respondents to indicate the date court-ordered busing was to take place while the disposal question asked respondents to offer at least one solution to the problem. Respondents were scored according to the number of correct responses provided to the first three questions and whether or not they could provide a solution for the disposal question.
The four questions used for a comparable measure of knowledge of national affairs asked for the name of the local congressman, his party, the effective date for the Panama Canal transfer under the proposed treaty, and solutions for U.S. dependence on foreign oil.

The following items were used to create indices of perceived comprehension of government:

1. How often do you feel that politics and government in Washington (in your city or township) are so complicated that the average person can't really understand what is going on? Would you say most of the time, some of the time, or almost never?

2. How often do you feel that the people in the federal government (in local government) are talking over your head? Would you say most of the time, some of the time, or almost never?

Responses were summed to create a local and national index.

The three items used to create the indices of trust were:

1. How much of the time do you think we can trust the government in Washington (locally) to do what is right? Most of the time, some of the time, or almost never?

2. Do you think that quite a few of the people running the federal government in Washington (in your city or township) are crooked, some are, or do you think hardly any of them are crooked?

3. Do you think that quite a few of the people we elect to federal office in Washington (local office) lose touch with
the people pretty quickly? Or would you say some of them lose touch? Or would you say hardly any of them lose touch with the people?

The answers to the first item were reversed and indices created by a simple summing of responses.

Age and education were measured via two simple, direct questions.

Results

An examination of the levels of the independent and dependent variables in the hypothesized model shows that sample members are slightly more newspaper than television dependent on both local and national levels. Similarly, respondents were more knowledgeable about local affairs than about national affairs, were more likely to think they could comprehend local affairs than national affairs, and were more trusting in local officials than national officials.

The correlation between the measures of local newspaper dependency and local television dependency was -.88, while the correlation of these dependency indices for the national level was -.86. Dependency on the local level is correlated with national dependency .65 for newspapers and .67 for television.

The local and national knowledge indices are correlated .56. The local and national perceived comprehension indices have a correlation of .48 while the local and national trust items are correlated .40. Clearly analyses of the model for these two separate levels--local and national--need not produce
identical results. Perceived comprehension of public affairs on the local level is correlated .46 with trust of local officials while these two indices on the national level are correlated only .20. In both cases, the data seem to empirically justify the conceptual distinctiveness of the two indices.

The mean age of the sample respondents was 41.6 years. The mean level of education was 13.5 years of formal schooling.

Path coefficients for the hypothesized relationships are shown in Figures 1 through 8. Since the age and education variables were introduced as controls rather than because of their substantive importance, the paths for these variables are of secondary importance. Significant paths were predicted between dependency and knowledge, dependency and perceived comprehension, and dependency and trust. Also predicted were paths from knowledge to perceived comprehension and from knowledge to trust.

Figures 1 and 2 show support for the predicted links between dependency and knowledge of local affairs. Small but significant paths emerge, indicating that newspaper dependent persons are indeed higher in knowledge of local affairs than persons not dependent on newspapers. Television dependent persons are more likely to be low in knowledge than persons not television dependent.

The predicted link between dependency and perceived comprehension of local affairs also surfaces in Figures 1 and 2. Those persons newspaper dependent are more likely to think they
comprehend local affairs than those persons not dependent on that medium. Television shows the opposite effect.

Finally, the predicted link between local knowledge and perceived comprehension also is given support in these figures. Persons more knowledgeable about local affairs are more likely to think they comprehend the workings of government.

Figures 3 and 4 show support for the hypothesized links between dependency and local trust and between local knowledge and local trust. Those persons newspaper dependent for their local news are more likely to show trust in local government officials as are those persons possessing higher levels of knowledge about local affairs. The relationship is reversed where television dependency is concerned.

Age and education, Figures 1 through 4 show, are generally related to dependency, knowledge and perceived comprehension of local affairs, but unrelated to trust. These two control variables, however, do not explain away the dependency effects. The standardized coefficients indicate dependency continues to be an important variable on the local level even after the effects of age and education are controlled for.

The findings for the national level are presented in Figures 5 through 8. Again, there is consistent support for the hypothesized relationship between dependency and knowledge of public affairs. The sample members high in newspaper dependency are more likely to be knowledgeable about national affairs; the persons high in television dependency are more likely to be low in public affairs knowledge.
National level dependency, however, seems to be unrelated to perceived comprehension, Figures 5 and 6 show. The predicted relationship between dependency and trust exists only where newspapers dependency is concerned (Figures 7 and 8). Knowledge of national affairs is related to perceived comprehension, but not to national trust.

Age and education again seem to be related to dependency as well as to knowledge. Education is related to perceived comprehension, though federal trust is not linked to either of the control variables.

In Figures 1 through 8, age and education were used as additive variables to test the linear model hypothesized. In other words, the assumption was made that there was no interaction between these variables and dependency which would alter the overall pattern of effects predicted. Subsequent analyses of sample members partitioned four groups based on level of education and age, however, suggest that assumption is not entirely justified. In fact, these analyses show, the effects shown in Figures 1 through 8 are almost entirely nonexistent in the group of low education, younger sample members. For them, dependency does not produce the effects on knowledge, perceived comprehension and trust shown here. Nor is knowledge linked with comprehension and trust. The general pattern of relationships, however, holds for the other three control groups.
Summary and Discussion

Overall, the hypothesized relationships between dependency and knowledge, dependency and perceived comprehension and dependency and trust were supported where local public affairs were concerned. Newspaper dependency was positively related to these variables, while television dependency was negatively related to them.

The second hypothesis, that the relationship between dependency and knowledge should be strongest and the relationship between dependency and trust should be weakest, is not supported where local measures are concerned. The link between dependency and knowledge is larger in absolute terms where both newspaper and television dependency are examined, but the magnitude of the difference is so slight as to suggest little real difference exists.

Knowledge is related to both local perceived comprehension and local trust, as predicted. These relationships, as well as the others predicted for the local level, hold even after controlling for age and education in a linear model.

As predicted, dependency is related to public affairs knowledge on the national level as well. In fact, the relationships between the two dependency measures and knowledge are slightly larger where national public affairs is of concern than where local public affairs is being studied. But dependency is not related consistently to national perceived comprehension and
trust. Knowledge is related to the national perceived comprehension measure, but not to national trust. Clearly the full model gets its only consistent support on the local level.

Even the local model, however, is not given support among those younger sample members (under 37 years old) who were relatively low in formal education (less than 13 years). For this group, there is no evidence dependency is an important variable in effects analysis. A similar conclusion was reached by Becker, Sobowale and Casey (1978).

A partial explanation for this lack of findings for these sample members may be that they read newspapers considerably less than other sample members. Since they do not use the news media very much, they seem to remain relatively unaffected by the differences between them. That, of course, is a fairly reasonable restriction on the dependency hypotheses.

In general, the data seem to argue that dependency is an important variable in understanding media effects. Persons dependent on newspapers learn more about both local and national affairs than persons not dependent on that medium. Persons dependent on television, on the other hand, seem to learn less about public affairs than persons not so dependent. On the local level, newspaper dependent persons seem to become more convinced they can and do comprehend local government and more trusting in their local officials.

These effects are not universal. But that conclusion is
consistent with inferences about other media effects. It seems to be true that the media affect only some people only some of the time. The dependency analyses presented here, however, argue that the media do have effects. What is perhaps even more important, the analyses show that not all of the media have the same kinds of effects. Which medium carries the information matters.
Notes

1 For the most part, systematic data to support many of these general observations about media differences do not exist. A pilot study directed by the first author of this paper and conducted by graduate students did suggest gross differences in an important aspect of news presentations. Newspapers backgrounded news accounts more often and more extensively than did television. The two media, however, presented about the same amount of issue-oriented copy and emphasized solutions about equally. The study, it should be noted, dealt only with local and state news.

2 The authors are particularly indebted to colleague Ellen Wartella for formulation of this argument as well as development of other aspects of this manuscript.

3 The study was conducted as part of an upper-division and graduate course taught by the authors. The students, unaware of the specific hypotheses at the time the study was fielded, were given standard interviewing instruction prior to the actual fielding. The contribution of the students to the project is gratefully acknowledged by the authors.
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Fig. 1: Newspaper dependency, knowledge of local public affairs information and perceived comprehension of local government.

Age  
\[ U \] 
\[ .16 \] 
\[ .98 \] 
\[ .97 \] 
\[ .95 \] 

Newspaper dependency  
\[ .16 \] 
\[ .15 \] 
\[ .14 \] 
\[ .17 \] 
\[ .12 \] 

Local knowledge  
\[ .09 \] 
\[ .17 \] 

Local comprehension  
\[ .14 \] 

Education  
\[ - .10 \] 
\[ .17 \] 

Fig. 2: Local television dependency, knowledge of local public affairs information and perceived comprehension of local government. Asterisked betas are non-significant (p = .05).

Age  
\[ U \] 
\[ .16 \] 
\[ .98 \] 
\[ .96 \] 
\[ .95 \] 

Television dependency  
\[ .07^* \] 
\[ .17 \] 

Local knowledge  
\[ .14 \] 

Local comprehension  
\[ .14 \] 
\[ - .12 \] 
\[ - .12 \] 

Education  
\[ - .10 \] 
\[ .11 \] 
\[ .17 \]
Fig. 3: Newspaper dependency, knowledge of local public affairs information and trust in local government. Asterisked betas are non-significant ($p = .05$).

Fig. 4: Local television dependency, knowledge of local public affairs information and trust in local government. Asterisked betas are non-significant ($p = .05$).
Fig. 5: Newspaper dependency, knowledge of national public affairs information and perceived comprehension of the federal government. Asterisked betas are non-significant (p = .05).

Fig. 6: National television dependency, knowledge of national public affairs information and perceived comprehension of the federal government. Asterisked betas are non-significant (p = .05).
Fig. 7: Newspaper dependency, knowledge of national public affairs information and trust of the federal government. Asterisked betas are non-significant (p = .05).

Fig. 8: National television dependency, knowledge of national public affairs information and trust of the federal government. Asterisked betas are non-significant (p = .05).