To determine the elements that most influence newspaper subscribership, 400 adults were polled in a stratified proportional sample to assess their levels of news media use in childhood and the strength of certain sociopsychological needs, and to record life style and demographic characteristics. Factor analysis of needs questions suggested the presence of three needs types: surveillance, companionship, and stimulation. Multiple regression analysis of the factors demonstrated that being white, male, and younger were the best predictors of the surveillance need. Lower levels of media exposure in childhood were the strongest predictors of the companionship need; being white and female were also significant. The sole predictor of the stimulation need was a lower level of news media exposure in childhood. Regular readers of newspapers were found to be older, more involved with their community, better educated, and surveillant. Results suggest that to attract and hold subscribers, newspapers should focus on presenting local news in depth and should be less concerned about competition from television. Younger adults present a rich potential market because of their higher educational attainment and their stronger surveillance need, although their greater mobility and lower levels of community integration lessen the impact of this market. Numerous tables and a three-page bibliography conclude the paper.

(Author/EL)
The Readership Problem: Steps Toward a Comprehensive Model

Laurence B. Lain
Department of Communication Arts
University of Dayton
Dayton, Ohio 45469
(513) 229-2742

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THE READERSHIP PROBLEM: 
STEPS TOWARD A COMPREHENSIVE MODEL 

by 

Laurence B. Lain 
University of Dayton 

ABSTRACT 

In attempt to determine the elements which most influence newspaper subscribership, 400 adults were polled in a stratified proportional sample to assess their levels of news media use in childhood and strength of certain sociopsychological needs, and to record life style and demographic characteristics, here called life situation. 

Factor analysis of needs questions suggested the presence of three needs types: Surveillance, Companionship, and Stimulation. Multiple regression analysis of the factors demonstrated that being white, male, and younger were the best predictors of the Surveillance need. Lower levels of media exposure in childhood was the strongest predictor of the Companionship need; being white and female were also significant. Sole predictor of the Stimulation need was a lower level of news media exposure in childhood. 

Variables were then entered into a multiple discriminant analysis which used newspaper subscribership as the dependent variable. Four discriminating variables were obtained: higher levels of community attachment, older, more education, and greater surveillance need. 

Results suggest that to attract and hold subscribers most effectively, newspapers should focus on presenting local news in depth, and should be less concerned about competition from television. Younger adults present a rich potential market because of their generally higher educational attainment and their stronger surveillance need, although these factors are mitigated by their greater mobility and correspondingly lower levels of community integration.
The Readership Problem:
Steps Toward a Comprehensive Model

Newspaper editors and publishers have been aware for some years that their audience, if not actually slipping, is not keeping pace with the growth of the population. While newspaper circulation in actual numbers has never been higher, the medium has experienced a real and significant decline in the proportion of adults who regularly make the newspaper a part of their daily lives. Table 1 illustrates that, from a high of .54 daily newspapers circulating per adult in 1950, only about .40 papers per adult were being sold in 1980, a drop in penetration of more than 25 per cent.

For decades, of course, newspapers had no real competition as mass media. In 1920 only magazines and cinema had any claim as rivals, and they dealt not so much with news as with entertainment and by their natures, were neither easily localized nor especially timely. By 1930 radio was beginning to attract large numbers of followers, but there were then only 612 stations on the air. The 1940s were times of growth for all media. The public was hungry for war news and read and listened to whatever was available. It was not until after 1960 that editors began to notice their readers slipping away and publishers realized that henceforth they would have to compete for the time -- and money -- of their audience. But Schramm and Huffer (1946) had already found that those in younger age groups were placing less faith in newspapers, and could give them up sooner than they would abandon radio.

In just 20 years, editors would see the incredible growth of television, from 111 stations in 1950 to 1,038 in 1970 which when combined with the resurgence of radio -- especially the popularization of the FM band, and the emergence of countless special interest magazines, threatened the position of the daily newspaper at the pinnacle of the mass media world.
The newspaper industry has become increasingly concerned by this trend, especially since it appears that the youngest age groups are those with the greatest apparent decline in a commitment to newspaper reading. A study done by Yankelovick, Skelly and White (1976) for Harte-Hanks Newspapers presented 51 hypotheses which might contribute to the decline, and was based on open-ended interviews with young people and industry experts. While the report gathered no statistical data and performed no analysis in attempt to test the hypotheses, it remains the best catalogue yet published of possible reasons for recent changes in the newspaper-reading behavior of younger adults. While many editors initially believed that such a decline was a short-term phenomenon and that, since people naturally began using the newspapers more as they got older -- and that, thus, these younger non-readers would eventually begin reading as they aged -- several studies have suggested otherwise: the maturing effect that had always been taken for granted among newspaper readers seemed not to exist after all. Data presented in the Yankelovick study, in a report of the Newspaper Readership Project, "Young Adults and the Newspaper" (1978), in Stone and Wetherington (1979), and in Robinson and Jeffres (1979) shattered one of the newspaper industry's most cherished beliefs - the inevitable link between age and readership.

It seems clear that there has been a serious falling-off in the commitment of Americans to their daily newspapers, and worse, from the standpoint of the industry, the tendency has been most pronounced among younger persons, the very group on which the long-term health of the industry depends. The evidence that readers lost in youth are lost forever has created great interest among scholars and in the industry in exploring the conditions which may have contributed to the decline, and in gaining more knowledge of why people do or do not read papers.

Stone and Wetherington (1979) established that much newspaper use is simple habit, but if the habitual nature of newspaper reading is widely acknowledged, the conditions which foster the habit are less frequently agreed upon.
Generally researchers and industry experts, in seeking the whys of readership, have focused on one of three approaches.

EXPOSURE

Some studies have concentrated on the role of exposure to news media in childhood in helping to form future patterns of media use, and have found that the children of newspaper readers are more likely to become readers themselves in later life. A study by the Newspaper Advertising Bureau (1977) points out that people who had newspapers in their homes as children were more likely to become subscribers as adults, and that this greater commitment to newspapers cuts across social and demographic lines. Stone and Wetherington (1979), in confirming the habitual nature of much newspaper reading, found that newspaper use was closely tied to newspaper use by one's parents, even to the point that the offspring's time and place of reading the newspaper are closely associated with the time and place his or her parents read the paper.

A study by Mauro (1979) shows that the most important predictor of newspaper use by children is the availability of the paper in the home. He points out that children seldom seek out newspapers if they are not obtainable in the home and stresses that, if adults provide children with newspapers, the children will come to rely on the papers as adults do. Another study by the Newspaper Readership Project (1980) makes the same point:

Availability offers the most direct means of fostering or actually encouraging children's reading of newspapers in the home. But their parent's [sic] reading habits can provide them with powerful models of appropriate or desirable adult behavior.

LIFE SITUATION

Another often-used approach in the study of newspaper reading is an analysis of the demographic or lifestyle characteristics of a potential audience. However, demographic variables which are good predictors of readership, like age and education, are closely related to many lifestyle variables, like mobility or home
ownership. Consequently, both demographic and lifestyle considerations will be
treated in this study as a single category of readership predictors, called Life
Situation.

Few studies deal with only one dimension of Life Situation; consequently,
most of the research discussed below reports findings in more than one aspect of
the question, and sometimes in five or six or more. But it may clarify some
components of the life situation group of variables to briefly discuss each
element separately, despite the repetition that becomes necessary, to see why
each was included in the study.

PLACE AND LENGTH OF RESIDENCE

Bogart (1981) presents vast amounts of life situation data, circulation trends,
and results of readership studies by the ANPA which, among other things, emphasizes
the importance to newspaper reading of community commitment. Mobility adversely
affects readership, he says. Sixty-nine per cent of those who have lived in the
same place for five years are frequent readers, Bogart says, while only 56 per cent
of those who have moved in from elsewhere during that time read often.

Stamm, Jackson, and Bowen (1977) investigated one element of lifestyle,
mobility, and found both problems and possibilities for newspapers. While news-
papers lose subscribers who move away, new residents can be an attractive potential
audience. The study found that people who experience the greatest anxiety about
moving are the best potential customers for the newspaper, and that the group
which exhibits the greatest anxiety is the most mobile group: young adults.
Newspapers which target these new residents by persuading them that the newspaper
can be used to orient them to their new communities are more likely to be success-
ful in attracting them as subscribers than are most other papers, they maintain.

Stevenson (1979) also found differences in the ways long-time and new community
members use newspapers. Long-time residents in the study displayed a greater need
for information and hard news, while newer residents used the paper more for
entertainment and as a guide to leisure activities.
DWELLING TYPE

Stone and Trotter (1981) found the number of single-family homes in a market, along with population and number of residences, to account for almost two-thirds of the variance in the total circulations of 195 daily newspapers, but that the combination was ineffective at predicting circulation for individual newspapers. Bogart (1981) pointed out that deliveries to multi-family residences pose more problems for newspapers than delivery to single homes, and that delivery problems are cited as main reason offered by subscribers who cancel.

OWNERSHIP OF DWELLING

Many studies have pointed out the much greater newspaper penetration among residents who own their homes. Bagdikian (1971) reported that owner-occupied dwellings were more than half again as likely to receive a newspaper than were renter-occupied homes. Stamm and Fortini-Campbell (1981) found significant mid-range correlations between newspaper use and residents' orientations toward their communities, manifested particularly by home ownership and voting in recent elections.

OCCUPATION

Bagdikian (1971) reported that a clear positive relationship exists between newspaper reading and type of employment, income, and education. "The Daily Diet of News," one of a series of studies by the Newspaper Readership Project (1978), noted the much greater use of the newspaper by those in professional or managerial positions than by those in other types of occupations. Schweitzer (1975) found that the combination of occupation, education, and income -- taken together -- was the best predictor of newspaper readership among young adults. People with professional or technical occupations were significantly more likely to subscribe than those in other occupational categories. Sobal and Jackson-Beeck (1981) found newspaper nonreaders to be significantly less likely to have professional or managerial jobs, and to be significantly more likely than readers to rank themselves as members of the lower and working classes rather than of the middle or upper classes.
EDUCATION

Many studies have linked education with newspaper use -- or lack of education with newspaper non-use. Bogdikian (1971), Schweitzer (1975), and the Newspaper Readership Project (1978) all reported positive relationships between newspaper use and education. Westley and Severin (1964), Penrose et al. (1974), and Sobal and Jackson-Beeck (1981), however, studied non-readers, and all reported that lower educational attainment was associated with lower newspaper use.

MARITAL STATUS

Schweitzer (1976) found that married persons were significantly more likely to subscribe to a newspaper than unmarried persons, and that marital status was a better predictor of subscribership than either education or occupation. McLeod and Choe (1978) found marital status to be among the strongest correlates from a long list of variables, a relationship that retained its strength even after all other variables were controlled. Sobal and Jackson-Beeck (1981) found significantly more non-readers than readers to be widowed, divorced, or separated.

RACE

Newspaper use by blacks has generally been found to be lower than among whites, but Bogart (1981) reports that readership levels among blacks have been relatively stable compared to that among whites. He cites a Simmons Market Research report showing that reading "yesterday" among whites dropped from 80 per cent to 72 per cent from 1970 to 1979, while the corresponding figures for blacks were 61 per cent to 59 per cent. Blacks and whites spend the same amount of time with the newspaper (34 minutes), he reports. His 13 percentage point difference between blacks and whites is close to the 12-point difference between blacks and whites found by Sobal and Jackson-Beeck (1981).

AGE

We have already seen how newspaper readership traditionally has been linked closely with age, a relationship that continues to appear in more recent research. The link is more suspect that it once was. Larkin, Grotta and Stout (1977) found
that young adults are far less newspaper-oriented than older adults, an attitude more apathetic than hostile, seeing the newspaper largely as an information-only medium. Data from the Newspaper Readership Project (1978) and from Sobal and Jackson-Beeck (1981) found a positive association between newspaper reading and age. Burgoon and Burgoon (1980), found that the relationship between readership and any single variable was slim. Age, they said, was a strong predictor when used in association with other variables, particularly satisfaction with the paper and income.

**INCOME**

Virtually every study using income as a variable has found a positive relationship between income, alone or in combination with other variables, and newspaper use. Westley and Severin (1964) and Penrose et al. (1974) found that lower income was associated with non-reading, and the Newspaper Readership Project (1978) found that newspaper and radio use appear to increase with educational and income levels, while television use declines.

**SEX**

Large differences in sex and newspaper readership have not generally been found, in part because among married couples, who compose the majority of respondents in virtually all studies, newspaper subscribing is a household characteristic. Either both husband and wife take the paper, or both do not. The Newspaper Readership Project (1978) did, however, find a greater tendency among women to use newspapers over radio.

**COMMUNITY INTEGRATION**

Many studies have reported on variables called community identification or community integration, and although these have been operationalized differently, they have often been good predictors of newspaper use. Jackson and Stamm (1979), for example, discussed community integration from the standpoint of length of residence, but found that new residents' becoming stable subscribers was also due to such factors as having children in school, political activity, and membership
in local organizations. McLeod and Choe (1981) also found moderate to strong correlations between newspaper use and community integration, which in this case included length of residence and level of political participation. Stamm and Fortini-Campbell (1981, 1984) analyzed a number of integration factors and found significant mid-range correlations between readership and residents' orientations toward their communities, manifested particularly by home ownership, length of anticipated future residence, and voting in recent elections. Bogart (1981) stresses the importance of community attachment and identifies a number of variables which could be a part of it, including location of residence, mobility, and membership in organizations.

It is clear that the relationships among life situation variables are many and complex. But such factors as age, education, mobility, community integration, and others turn up so often in the literature that an investigation of the correlates of newspaper readership must include them.

NEEDS

There is a third frequently-used predictor of media use: sociopsychological needs, which play a role in determining if and how media are to be used. These needs themselves appear to be at least partly the products of interplay between life situation and childhood exposure to media. Some research has been successful in linking certain categories of needs with the use of particular media, and it will be useful to try to relate these needs with life situation and exposure factors which serve as the best predictors of newspaper use.

For more than thirty years researchers have sought to define the psychological roots of media use, and to relate those to the tendency to use certain media. This approach to ascertaining the sociopsychological needs of audience, and the ways they gratify those needs through media and other sources, is represented by Lasswell (1948), who described four fundamental needs which could be satisfied by media use: surveillance of the environment, correlation of the parts of society with the environment, cultural transmission from generation to generation, and entertainment.
However, Lasswell made no effort to tie specific needs to the use of specific media.

Since Lasswell, many schemata have been devised to account for the different categories of needs that people have reported. Often this has been done by asking people to report their needs and content analyzing their reports, or having them respond to questions about the intensity of many specific needs and factor analyzing the answers to look for patterns to response. In studies of the influence of needs on media use, researchers can use the schema thus generated in looking for different sorts of media behavior.

Questions about respondents' need to keep up with events, or to keep tabs on what is going on, for example, often elicit the same kinds of responses, and are frequently classified together in a more general category of need, which in many studies is called the Surveillance need. A strong need to keep informed has frequently been found to be a good predictor of newspaper use. Discussed below are a number of studies which have examined the predictive powers of certain types of needs on media use, and which formed the basis for many of the questions asked in this study.

SURVEILLANCE

Most studies of the ways in which people use media have included some sort of surveillance dimension, although questions have been asked and needs expressed in many different ways. In his study of the effects on audience members during a New York City newspaper strike, Burelson (1949) identified what he called rational and non-rational ways in which people use daily papers. He points out that although people are quick to claim a rational basis for their newspaper use, i.e. information about and interpretation of public affairs, only about a third of the subjects studied actually used the paper in that way; far more numerous were the non-rational gratifications they received from their papers, some of which will be discussed later in the paper. Kimball (1959) studied another New York City newspaper strike, and found similar results, including the presence of the surveillance function and the greater number of other gratifications obtained by newspaper readers.
McQuail, Blumler and Brown (1972) found surveillance to be one of four types of gratifications their subjects obtained from media, saying that their work "shows it to have an important place in news viewing dispositions." They found this type of media use to be directed toward obtaining information and opinions about events more concerned with the world in general than with oneself. Katz, Gurevitch and Haas (1973) identified four general classes of needs, one of which -- cognitive needs -- they defined as the need to strengthen information, knowledge, and understanding. This need they found strongly related to satisfaction with the newspaper in particular and print media in general. Participants in this study did not find broadcast media particularly helpful in satisfying this need.

In a study of children's television viewing, Greenberg (1974) hypothesized two sorts of learning gratifications: to learn about "things," and to learn about "myself." In fact, Greenberg collapsed the categories in the final analysis, having found that learning itself, subject notwithstanding, was the gratification.

Weaver, Wilhoit and Riede (1979) found that the newspaper was the preferred medium to "keep tabs on what's going on" among adults 21-34 and males 35-87, although women 35-87 preferred television for that purpose. Weaver, Wilhoit and deBock (1979) found that respondents rated keeping tabs as the most important need and the need to which they most often turned to the mass media to satisfy. Newspapers were the medium most often used to satisfy this need in this study. However, Weaver and Buddenbaum (1979) found in reviewing a number of other studies, that television news was most often used for overall surveillance, while the newspaper was most often used for seeking specific information, for local news, and for advertising.

McCombs and Einsiedel (1980) described a process wherein the newspaper content that a person reads is shaped by his attitudes about how well that paper performs its jobs. These attitudes and the reader's perceptions of what sort of job the paper should be doing are shaped by his motivations for reading. Persons in whom the motivation to keep up with current events is strong are most likely to read the
paper daily; those who have a strong motivation to determine what is important are even more likely to do so. In general people who place a high value on keeping themselves informed about events score high in newspaper readership. Becker, Collins and Fruit (1980) found significant differences among the means of frequent readers, infrequent readers, and nonreaders in need to know about merchandise and sales, keeping up with local and national events, and knowing about local and national government.

Some operationalization of a surveillance need appears in almost every media gratifications study in the literature. This suggests at least that some needs play an important role in influencing how and why some media -- including newspapers -- are used some of the time. This is not the only need dealt with in most studies, however, and several others are worthy of some attention here.

DIVERSION

There is a large class of need types in which the subject uses media in a way almost directly opposite from surveillance uses. Whereas in surveillance, media are used to strengthen the contact between user and the world outside, in this type of need -- called escape, diversion, entertainment, relaxation, or something else -- media are often used, at least in part, to weaken contact between the user and the world. While some studies do make distinctions between, for example, entertainment and escape, we will treat together all the needs which pertain to the release of tension.

Among the "non-rational" reasons why people read newspapers, Berelson (1949) found that some use of the medium was for respite from the ordinary activities of life, or to fill a void -- something to do when there was nothing better to spend time with, something Kimball (1959) called occupation -- killing time. Berelson concluded that much newspaper reading was a ritualistic, near compulsive act, that the act itself of reading was inherently pleasurable and prestigious, perhaps because of association with rewards for reading received from parents or teachers during childhood. Schramm and White (1949) argued that all reading is done with the
expectation of reward. The immediate reward of drive reduction leads to reading entertaining or stimulating materials, while reading for delayed reward, the more sophisticated sort of reading, produces a more general preparedness for reality. Kay (1954), however, asserted that all reading must offer immediate reward, although the promise of delayed reward will be absent if the reader does not plan to make use of the material at a later date.

Katz and Foulkes (1962), in an examination of escapism, asserted that no particular mass medium was associated with that gratification. Escape, they maintained, is not self-evident. A person who appears -- from the position of the observer -- to be using media for escape may be getting radically different gratifications from the exposure. They found unwarranted the assumption of an association between the elements of the escape function and dysfunctional consequences.

McQuail, Blumler and Brown (1972) identified diversion as one of the four principal types of gratifications obtained from media, and found that subject used media to escape from the constraints of routine, to escape from the burdens of problems, and for emotional release. They found a greater tendency for the participants in their study to use television and radio drama for this purpose, and related some TV news viewing to an escape from one's own problems, perhaps by seeing someone else's greater problems instead. Katz, Gurevitch and Haas (1973) found that no one medium was used principally for escape, which they defined as tension release or weakening contact with self and with one's social role. However, they reported that respondents found nothing more useful than mass media in gratifying the need for escape.

Greenberg (1974) found that older children used television viewing to satisfy the need to pass time far more than younger children did. This was the most frequent gratification among the oldest children in his study, although habit was the most common reason for viewing among younger children. The need "to forget" ranked last among all age groups. Murray and Kippax (1978) studied children's perceptions of various media in three Australian towns of differing levels of
television availability. Children in all three perceived newspapers as being more informational than entertaining, something that was true to a lesser extent with radio. Television was seen as being both informational and entertaining, although children without access to TV perceived it as somewhat more entertaining. Cinema was seen almost exclusively as entertainment.

Weaver, Wilhoit and Riede (1979) and Weaver, Wilhoit and deBock (1979) found television to be the preferred medium to gratify the needs to be entertained, to kill time, and to relax. Weaver, Wilhoit and deBock also found that only the need to keep tabs on what's going on was gratified through use of the mass media more frequently than these three, and that respondents expressed a high level of satisfaction with the media to satisfy these needs.

SOCIAL CONTACT

Another need frequently identified in studies of the gratifications of media use is some sort of substitute companionship dimension, two aspects of which are evident in Berelson (1949). He found that people used newspapers to enhance their contact with other people by providing useful information which can be shared with friends or from the basis for conversation. The newspaper also provided people with indirect contact with people, Berelson found, through columnists, human interest stories, advice and gossip columns, and insight into the private lives of other people.

McQuail, Blumler and Brown (1972) reported similar findings, designating one of their basic categories of needs as Personal Relationships, a category which included media use for both social utility and companionship. Participants in their study found television quiz programs highly satisfying for social utility needs, and reported radio and television serials as most often satisfying the latter. Katz, Gurevitch and Haas (1973) found integrative needs which served to strengthen contact with family and friends, and found newspapers to be the most helpful medium for the purpose, with radio and television also relatively helpful. They found the need for substitute companionship to be relatively unimportant to the participants in their study.
Weaver, Wilhoit and deBock (1979) found companionship to rank eighth of nine needs asked about in their study, and respondents ranked as sixth both the frequency of their media use to satisfy the need, and their satisfaction with the ability of mass media to gratify the need. Becker, Collins and Fruit (1980) found that the need to have current events information for conversation was a good motivation for people to read newspapers, and was associated with higher levels of reading about local and national government news and stories about "ordinary people."

EXCITEMENT AND AROUSAL

Several studies have dealt in part with the use of the mass media to provide excitement or stimulation. Kimball (1959), who confirmed Berelson's assessment of rational and non-rational gratifications in newspaper reading, added the need for stimulation to Berelson's list. Even though many readers expressed disapproval of stories about tragedy, murder, and violence, many others admitted seeking them out.

Katz, Gurevitch and Haas (1973) found effective needs in their respondents, which they defined as strengthening aesthetic, pleasurable, and emotional experiences. But they found few strong ties to specific media, although the newspaper seemed not to be often used for gratification of the need, and a greater variety of non-media sources were cited as most helpful. Greenberg (1974) found that the importance of television to gratify the arousal need in children fell off sharply after age 9, dropping from the second most important gratification obtained to the sixth in a list of eight.

Palmgreen, Wenner and Rayburn (1980) found the entertainment factor to be an important gratification sought by viewers of television news, and an important part of their factor structure on the item came from responses to the statements "TV news is often dramatic," and "TV news is often exciting."

The principal contribution of this study, and the element which distinguishes it from those that have come before, is that it uses all three types of variables:
exposure, life situation, and needs, to attempt to explain newspaper use.

Most previous studies have made use of only one or two of these elements, but this study will make use of a more complex model which will attempt to better explain the complex interrelationships which exist.

**Method**

**The Population:** Adult residents of Montgomery County, Ohio, an industrial area in the southwestern part of the state, where the population sampled in this study, which was conducted by telephone from July 10 to July 23, 1983. Adult population (18 years of age or more) of the county according to the 1980 census was 412,000, about one-third of whom lived in Dayton, the county seat. A goal of 400 completions was established, which would place the probability of sampling error below the five percentage points at the 95 per cent level of confidence.

**The Sample:** The sample was a stratified proportional sample based on telephone exchanges. There were 43 exchanges in use in the county, accounting for 135,000 residential phones. Each exchange was assigned a percentage of the 400 desired completions which corresponded with that exchange's percentage of residential phones in use. It was anticipated that assigning completion sample proportions to the exchanges would help insure a sample corresponding closely with the population, since exchanges are assigned rather rigidly to geographic areas.

Four-digit random numbers were computer generated for each exchange. When the target number of 400 completions was reached, two of the 43 exchanges had been slightly overrepresented and two slightly underrepresented, but 394 completions (98.5 per cent) were present in the same proportion for the sample as in the population. The completion rate was 65.3 per cent among eligible respondents reached. Tables 2 and 3 report survey call distribution and compare the sample with known population data.

**The Questionnaire:** Respondents were asked four types of questions. First, they were asked about their own use of news media, including newspapers, news on television, radio, cable TV, and in news magazines. Next they were asked about
their recollection of their parents' media use while the respondents had been of about junior high school age, a type of question which had been used with some success by Stone and Wetherington (1979). Third, respondents were asked a series of questions about the strength of certain sociopsychological needs which have been found to relate to news media use, and their satisfaction with the ability to several types of news media to satisfy those needs. Finally, they were asked a number of demographic and lifestyle questions.

Results

Using a sub-sample of questionnaires, coding schemes were developed for all open-ended questions in the instrument. After questionnaires were coded, intercoder reliability exceeded 98 per cent.

Two additional variables were created at this point. The first, a summed score of five variables asking for respondents' recollection of use by their parents of newspapers, radio and TV news, and news magazines, and of newspaper use by teachers, was used as a measure of childhood exposure to news media. The second derived variable was a measure of respondents' levels of integration into the community in which the daily newspaper was published, and which had been shown in Jackson and Stamm (1979), Stamm and Fortini-Campbell (1984), and elsewhere to be related to community attachment, and included place of residence and length of time in the county and in the dwelling, type of dwelling, home ownership, and marital status.

Analysis of the data took place in three phases.

Factor Analysis: Responses to the questions pertaining to the types and strengths of certain sociopsychological needs which might be capable of gratification by exposure to news media were factor analyzed with the SPSS Factor subprogram by the principal-factor method and subjected to an oblique rotation, a method which does not assume that the variables are necessarily unrelated to each other. This method produced the cleanest factor structure. The analysis, results of which are reported in Table 4, produced a three-factor solution. An
eigenvalue of at least 1.0 was established as the cutoff point for determining the number of factors to be used, and a factor loading of at least .40 was the criterion for retaining any variable as a component in a factor.

Factor 1 was called Surveillance, defined by the general need to keep up with events in Dayton, in Ohio, in the nation and world, and with products and sales. Factor 2 was named for the most heavily-loading variable, Companionship, and included the needs to overcome loneliness and to fill time. Factor 3 was called Stimulation and included the needs for current events information for conversational purposes, the desire to learn about dramatic, exciting things, and exposure to ideas which agree with one's own. Two variables, relaxation and the planning of one's day, did not load strongly on any factor and were dropped from later stages of the analysis.

Multiple Regression Analysis: The next phase of the analysis was to attempt, through a multiple regression program, to ascertain the characteristics which promoted the development of the needs identified through the factor analysis. All variables relating to childhood news media exposure and respondents' life situation were entered in chronologically-based stepwise fashion into an SPSS New Regression subprogram for each of the three need factors. The stepwise method of inclusion was selected because some variables were logically present before others, a fact of which the analysis should take note. Age, race and sex were entered first, followed by exposure to news media in childhood and education, and then by the remaining life situation variables. Two dummy variables were used in the regressions: race and sex. An additional run in which all variables were entered simultaneously was used to allow for order of entry and produced similar results, as did runs in which variables were entered in reverse order.

The results, illustrated in Tables 5 through 7, provide a slightly different profile for each need factor, and although the percentage of variance accounted for is relatively low, the results provide at least some indications of the kinds of things which influence the formation of each need.
The set of needs called Surveillance in this study were most strongly influenced by three variables significant at .05 or better: age, race, and sex. Whites displayed a greater Surveillance need than nonwhites, males a greater need than females, and younger respondents a greater Surveillance need than older respondents.

Three variables were also significant at at least .05 on the Companionship regression. The heaviest beta weight was for Exposrue at -.128, indicating that respondents with less exposure to news media as children displayed a greater Companionship need as adults than did respondents with more such exposure. This regression also indicated that females and whites exhibited greater Companionship needs.

Only one variable was significant on the Stimulation need factor: less exposure to news media in childhood was the sole predictor here, at the .01 level of significance.

Multiple Discriminant Analysis: The third major analytical step was to examine the influences on newspaper subscribership through the use of the SPSS Discriminant subprogram. Subscribing or non-subscribing to a daily newspaper was the dependent variable in this analysis, while childhood exposure to news media, life situation, and sociopsychological needs were the independent variables. As in the regression, all variables were entered in chronologically-based stepwise fashion. F-to-enter was set at 1.0 and the stepwise method WILKS was selected to obtain the largest overall multivariate F. Since only two groups were used in the analysis, subscribers and nonsubscribers, a maximum of one discriminant function was possible in the analysis. That function is reported in Table 8.

Four variables were identified in the analysis as loading on the function and consequently being the best predictors of newspaper subscribership: age, surveillance need, community integration, and education. Since the signs of all four coefficients are positive, the characteristics determined to be the strongest predictors of subscribership are

--more integration into the community in which the newspaper is published
--older
--more education
--greater surveillance need.

The standardized function coefficients are reported in Table 9.

Using the discriminant function, the program attempts to predict the group -- subscriber or nonsubscriber -- into which each case will fall. The per cent of cases correctly classified on the basis of this function was 73.25. The discriminating variables were better at predicting subscribers than non-subscribers: more than 93 per cent of subscribers were predicted correctly.

Discussion

While the percentage of variance accounted for by the discriminant function (13.6%) was not large, it is consistent with the results of other studies. The percentage of cases correctly classified by the function is good, however, suggesting that while there are clearly variables which have not been tapped in this study, those which contributed to the discriminant function were fairly successful at accounting for the variance within the study.

The focus of the interpretation should be on the social significance of the results: the discriminating variables allowed correct classification of nearly three-quarters of all cases, and classified more than nine out of ten subscribers correctly. The discriminating variables are themselves reliable enough to correctly classify subscribers -- correctly classifying 93 per cent of those cases. Few studies of this nature contained in the literature report these figures. Burgoon and Burgoon (1980), for example, in a study using a series of four samples and many of the same independent variables used in this study, reported variance explained ranging from 9 to 14 per cent. Their chief statistical tool was multiple regression analysis, however, which does not permit classification of cases. Certainly among the implications for future research suggested by this project would be an investigation of other possible sources of variance in newspaper subscribership, suggestions which are treated in the final section of this
chapter. Part of the reason for the low variance explained in this and similar studies may be attributable to measurement error, but there are clearly variables which have not been tapped in readership research heretofore. Persons who were older, better educated, are more highly integrated into the community, and had a higher surveillance need were those most likely to read a newspaper -- and the U.S. population is getting older and better-educated, which would seem to offer encouragement to newspapers. On the other hand, the population is far more mobile than it once was, a fact which Stamm, Jackson and Bowen (1977) found presents both problems and possibilities for newspaper subscribership. Younger adults -- the key problem group -- account for the greatest share of that mobility.

The question which confronts the newspaper industry now is how to tap into the reading potential presented by increasing age and education levels while offsetting the effects of increased mobility which reduce or delay integration into the community and may be detrimental to reading. It may be the surveillance variable which holds the key.

While older persons are more likely to read, results of this study suggest that it is in younger persons that the surveillance need is the greatest, perhaps at least partly because of anxiety caused by mobility. This would appear to suggest that newspapers ought to return to the job they do best; presenting news and analysis in depth, and eschewing the broader, perhaps more superficial, approach which is identified with television news. Furthermore, newspapers must do a better job of promoting the informational content of their medium, not their entertainment features or their "people" packages. Although respondents were not asked for what reason they had read specific types of content, more than four-fifths of the newspaper readers in the study reported reading a news or information item first on the previous day. It is unwise to assume that information content is necessarily being used exclusively to satisfy the sorts of surveillance needs discussed earlier, but it is not unreasonable to speculate that a large share of this material is being used in that way.
White males have always been the most active participants in the American economic system, and have therefore had the greatest need for information. However, females and nonwhites have in recent years become increasingly important members of the system, and newspapers now have an opportunity to try to stimulate the surveillance need in these groups, where the need has been less strong in the past.

But newspapers must stimulate this need by capitalizing on their strengths. A significant portion of newspapers' circulation problems may be traceable to their insistence on competing with television. Alperstein (1980) remarks that "local newspapers should be content to realize their own market limitations...[A] strategy for market growth should consider local information key in such an expansion."

Provider of local information is the niche in the media ecology which newspapers have always filled best. Newspapers will never win the numbers game by competing with television in TV's areas of strength; newspapers are not essentially companions or entertainers, but information machines, which can best maintain their position in the marketplace by emphasizing their own strengths, not by attempting to compete unnecessarily against the strengths of other media.

The premise on which this study was built has demonstrated the usefulness of an approach in which exposure, life situation, and needs -- predictors of readership which are often studied piecemeal but seldom in a single design -- are all used as components of newspaper subscribership. This approach makes it possible to begin to see the influence of each sort of variable on the others, something not possible in more limited designs.

But the relatively low amount of variance explained by the independent variables in the formulation of needs, and for that matter in newspaper subscribership, in this and similar studies suggests that there are additional questions to be asked and that more complex models with more variables are needed. Identification of the influences on media use is an applied problem and researchers have to
be concerned about how well their results predict that use.

A comprehensive agenda of media use research could profit from more complex derivatives of the design used in this study. Bit it is clear that, for a major agenda of that sort, the question of newspaper readership is too narrow; research must be placed in the larger context of the influences on overall patterns of media use, because of the tangled interrelationships among the variables.

One example will serve to illustrate this complexity. While exposed to the newspaper or to other news media in childhood did not predict adult newspaper subscribership nor development of the surveillance need (which is itself a predictor of newspaper use) in this study, low levels of such exposure did predict other needs, namely companionship and stimulation. And the stimulation need was found to be a good predictor of television news use. Relationships exist, but they are not necessarily the simple direct-causal relationships sought in most studies. It will take a significant commitment of both time and money to execute a design of sufficient complexity to untangle the many individual threads in the fabric of media use.

A research program of such complexity would probably have to be approached on two levels. 1) A series of cross-sectional telephone studies should be conducted which would refine the measures and seek the most parsimonious means at getting the greatest amount of information. 2) This would be followed by longitudinal designs using personal interviews to collect data from a broader population, using the results of the cross-sectional studies to design the measures.

On a short-term basis, refinement of the measurement of the influences of the principal types of independent variables used in this study should employ cross-sectional telephone survey data. Better measures of the type and quantity of childhood news media exposure might add to that variable's predictive power. The search must continue, too, for other variables related to life situation, to the antecedents of needs, and to the ways in which they are gratified by media use.
For example, this study did not approach the question of attitude toward media or toward specific newspapers. Palmgreen, Wenner and Rayburn (1980), in their study of gratifications sought and gratifications obtained from television news, point to the need for more such studies in the area of choice of medium. Such work might be useful in helping to explain newspaper use, a point made by McLeod, Bybee and Durall (1982), who noted a "surprising lack of separate measurement of gratifications sought and received within the same study." Only one newspaper market was measured in this study, and the two newspapers, both owned by the same company, may do a better- or poorer-than-average job of gratifying the needs sought by subscribers in their market.

Fuller treatments of patterns of community integration and reader needs should be a part of any overall program of research based on this model. The strength of community attachment as a discriminating variable suggests that a more intricately designed measure could reveal much more about the role this variable plays in newspaper use. Stamm and Fortini-Campbell's question on future anticipated residence, and Stamm, Jackson and Bowen's finding of the way mobility can enhance newspaper readership could be effectively integrated into such a measure.

Refinement in the isolation of need functions should be undertaken, making use of more variables to attempt to devise a more complete catalogue of needs which could become part of the larger model. At the same time it should be useful to examine more closely the surveillance function, particularly in regard to its strength among women and nonwhites, perhaps discerning whether members of those groups who are more integrated into the country's economic system display stronger needs of this sort, something that would allow newspapers to direct special attention to selling themselves to those groups.

Results of such cross-sectional studies into media exposure, life situation variables, and needs can then be used in more complex and extensive designs which would use longitudinal data collected by personal interviews, ideally administered...
to a national sample, or at least in multiple markets. Such a design would avoid the limitations of cross-sectional telephone surveys noted earlier in this chapter; and provide information in considerable depth about patterns of media use throughout the life cycle.

The successes of this study have laid the groundwork for a potentially promising and highly comprehensive approach to media use research. Future work along these lines must, however, have sufficient commitment in both time and money for the use of time-based designs and personal interviewing, which could overcome two principal methodological shortcomings of this work. But it is this sort of fully-integrated approach which can do the most to explain the influences on the newspaper reading habit, and which can be extended to other media use research agendas. It is a research program worth undertaking.
**Table 1**

Daily Newspapers Circulated Per Adult Aged 20 and Over

<table>
<thead>
<tr>
<th>Year</th>
<th>Pop 20+ (a)</th>
<th>Circulation (b)</th>
<th>Papers per Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>62,580,690</td>
<td>27,790,656</td>
<td>0.444</td>
</tr>
<tr>
<td>1930</td>
<td>75,138,340</td>
<td>39,589,172</td>
<td>0.529</td>
</tr>
<tr>
<td>1940</td>
<td>86,375,050</td>
<td>41,131,611</td>
<td>0.476</td>
</tr>
<tr>
<td>1950</td>
<td>99,610,960</td>
<td>53,829,072</td>
<td>0.540</td>
</tr>
<tr>
<td>1960</td>
<td>110,463,080</td>
<td>58,881,746</td>
<td>0.533</td>
</tr>
<tr>
<td>1970</td>
<td>126,412,360</td>
<td>62,107,527</td>
<td>0.491</td>
</tr>
<tr>
<td>1980</td>
<td>154,023,290</td>
<td>62,201,840</td>
<td>0.404</td>
</tr>
</tbody>
</table>

(a) U.S. Census Bureau  
(b) American Newspaper Publishers Association
Table 2
Comparison of Sample with Population

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>SAMPLE</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>50.0 pct.</td>
<td>46.8 pct. (a)</td>
</tr>
<tr>
<td>Female</td>
<td>50.0 pct.</td>
<td>53.2 pct. (a)</td>
</tr>
<tr>
<td>White</td>
<td>80.0 pct.</td>
<td>82.4 pct. (a)</td>
</tr>
<tr>
<td>Black</td>
<td>18.5 pct.</td>
<td>16.5 pct. (a)</td>
</tr>
<tr>
<td>Dayton Residents</td>
<td>33.9 pct.</td>
<td>34.9 pct. (a)</td>
</tr>
<tr>
<td>Now Married</td>
<td>61.7 pct.</td>
<td>61.7 pct. (a)</td>
</tr>
<tr>
<td>Mean Age (18+)</td>
<td>44.2 yrs.</td>
<td>45.9 yrs. (a)</td>
</tr>
<tr>
<td>CATV Penetration</td>
<td>48.7 pct.</td>
<td>48.9 pct. (b)</td>
</tr>
</tbody>
</table>


(b) Broadcasting Magazine 105, No. 10: 90 (September 5, 1983).
<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Calls Attempted</td>
<td>1286</td>
<td></td>
</tr>
<tr>
<td>Completions</td>
<td>400</td>
<td>31.1%</td>
</tr>
<tr>
<td>Non-Working Numbers</td>
<td>564</td>
<td>42.5%</td>
</tr>
<tr>
<td>Businesses</td>
<td>71</td>
<td>5.5%</td>
</tr>
<tr>
<td>Refusals</td>
<td>192</td>
<td>14.9%</td>
</tr>
<tr>
<td>Terminations</td>
<td>11</td>
<td>0.9%</td>
</tr>
<tr>
<td>No Subj. of Required sex</td>
<td>48</td>
<td>3.7%</td>
</tr>
</tbody>
</table>
Table 4

Factor Loadings: Needs

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<thead>
<tr>
<th>Need</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know Dayton events</td>
<td>.79*</td>
<td>-.05</td>
<td>-.06</td>
</tr>
<tr>
<td>Have info for conversation</td>
<td>.37</td>
<td>.04</td>
<td>.43*</td>
</tr>
<tr>
<td>Companionship</td>
<td>-.21</td>
<td>.72*</td>
<td>.28</td>
</tr>
<tr>
<td>Plan &amp; organize day</td>
<td>.35</td>
<td>.34</td>
<td>-.05</td>
</tr>
<tr>
<td>Relaxation</td>
<td>.01</td>
<td>-.15</td>
<td>.09</td>
</tr>
<tr>
<td>Overcome loneliness</td>
<td>.07</td>
<td>.70*</td>
<td>-.02</td>
</tr>
<tr>
<td>Hear dramatic/exciting things</td>
<td>-.08</td>
<td>.17</td>
<td>.75*</td>
</tr>
<tr>
<td>Nat’l, world events</td>
<td>.61*</td>
<td>-.12</td>
<td>.33</td>
</tr>
<tr>
<td>See, hear own ideas</td>
<td>.12</td>
<td>-.06</td>
<td>.69*</td>
</tr>
<tr>
<td>Hear about sales, products</td>
<td>.53*</td>
<td>.43</td>
<td>-.20</td>
</tr>
<tr>
<td>Follow Ohio events</td>
<td>.73*</td>
<td>-.05</td>
<td>.16</td>
</tr>
<tr>
<td>Fill time</td>
<td>-.01</td>
<td>.47*</td>
<td>.06</td>
</tr>
</tbody>
</table>

* variables defining each factor
Table 5

Regression Summary Table: Surveillance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>R</th>
<th>F</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>.307</td>
<td>.302</td>
<td>24.82</td>
<td>.01</td>
</tr>
<tr>
<td>Sex</td>
<td>.143</td>
<td>.176</td>
<td>5.11</td>
<td>.01</td>
</tr>
<tr>
<td>Age</td>
<td>-.098</td>
<td>-.141</td>
<td>1.92</td>
<td>.05</td>
</tr>
<tr>
<td>Education</td>
<td>-.078</td>
<td>-.046</td>
<td>1.13</td>
<td></td>
</tr>
<tr>
<td>Exposure</td>
<td>-.008</td>
<td>.003</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Com. Integra</td>
<td>-.062</td>
<td>-.108</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>Occup. Status</td>
<td>.050</td>
<td>.049</td>
<td>0.51</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>-.040</td>
<td>-.048</td>
<td>0.33</td>
<td></td>
</tr>
</tbody>
</table>

Degree of Freedom: 8, 234
### Table 6

Regression Summary Table: Companionship

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>R</th>
<th>F</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>.096</td>
<td>.103</td>
<td>2.20</td>
<td>.05</td>
</tr>
<tr>
<td>Sex</td>
<td>-.103</td>
<td>-.058</td>
<td>2.38</td>
<td>.05</td>
</tr>
<tr>
<td>Age</td>
<td>.070</td>
<td>.073</td>
<td>0.89</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-.088</td>
<td>.116</td>
<td>1.30</td>
<td></td>
</tr>
<tr>
<td>Exposure</td>
<td>-.128</td>
<td>-.090</td>
<td>3.44</td>
<td>.01</td>
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<tr>
<td>Com. Integra</td>
<td>-.084</td>
<td>-.041</td>
<td>1.37</td>
<td></td>
</tr>
<tr>
<td>Occup. Status</td>
<td>-.077</td>
<td>-.136</td>
<td>1.09</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>.031</td>
<td>.079</td>
<td>0.19</td>
<td></td>
</tr>
</tbody>
</table>

Degrees of Freedom: 8, 234
Table 7

Regression Summary Table: Stimulation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>R</th>
<th>F</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>.052</td>
<td>.030</td>
<td>0.64</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>.011</td>
<td>.025</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.019</td>
<td>.023</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-.109</td>
<td>-.126</td>
<td>1.91</td>
<td></td>
</tr>
<tr>
<td>Exposure</td>
<td>-.128</td>
<td>-.137</td>
<td>3.38</td>
<td>.01</td>
</tr>
<tr>
<td>Com. Integra</td>
<td>-.025</td>
<td>.004</td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>Occup. Status</td>
<td>.033</td>
<td>.077</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>In-ome</td>
<td>.023</td>
<td>-.029</td>
<td>0.10</td>
<td></td>
</tr>
</tbody>
</table>

Degrees of Freedom: 8, 234
Table 8
Discriminant Function for Newspaper Subscribership

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eigenvalue</td>
<td>0.155</td>
</tr>
<tr>
<td>Canonical Correlation</td>
<td>0.366</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>0.866</td>
</tr>
<tr>
<td>Chi Square</td>
<td>34.43</td>
</tr>
<tr>
<td>Degrees of freedom</td>
<td>4</td>
</tr>
<tr>
<td>Significant at</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>
Table 9

Standardized Function Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Integration</td>
<td>.515</td>
</tr>
<tr>
<td>Age</td>
<td>.498</td>
</tr>
<tr>
<td>Education</td>
<td>.452</td>
</tr>
<tr>
<td>Surveillance</td>
<td>.417</td>
</tr>
</tbody>
</table>
NOTES


2Ibid.

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McLeod, Jack M.; Bybee, Carl R.; and Durall, Jean A. "Evaluating Media Performance by Gratifications Sought and Received." *Journalism Quarterly* 59: 3-12, 59 (1982).


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