TELESCOPING:
The Skeleton
In the Recent Reading Closet
RESEARCH METHODS: Through-The-Book and Recent Reading

In the United States, magazine audiences are generally measured using one of two different measurement techniques. The first, which is known as the Through-The-Book method, requires that respondents express certainty that they had read or looked into a suitably aged (five weeks for weeklies and 11 weeks for monthlies) test issue after having been shown the cover and taken through the editorial content.

The second technique, called the Recent Reading method, requires that respondents answer with certainty that they had read or looked into any issue of the magazine in the previous publication interval — past month for monthlies, past week for weeklies, etc.

RESULTS OF THESE METHODS

Until recently, largely because of the historic similarity of the American Target Group Index (TGI) recent reading audience estimates to the Simmons through-the-book estimates, most American researchers were of the belief that the two methods produced roughly equivalent results (9)*. So much so, that in 1978 the Simmons company announced that, starting with the 1979 Study, Simmons would use both methods in order to expand the number of titles that were being measured: the through-the-book method would continue to be used to measure all magazines with other than a monthly publishing frequency as well as all monthlies with a rating of 3% or greater, and the recent reading method would be used for the smaller monthlies.

The historic similarity of the audience levels produced by the two methods notwithstanding, there was sufficient concern among magazines, agencies, and advertisers about what came to be known as the mixed method that the Advertising Research Found-

dation was successful in raising nearly a half million dollars to conduct a methodological study to assess the comparability of the two methods. The reason for the enormous price tag was the then generally held belief that whatever differences would be produced by the two methods would be small and the sponsors wanted assurance that an average difference of as little as 10% would be statistically significant.

Five months before the release of the ARF Top-Line Findings, when the results of the 1979 Simmons Study were first announced, the industry was stunned to discover that the Simmons recent reading estimates were nearly twice as large as what they had been accustomed to seeing.

That conclusion was subsequently confirmed by the ARF, which found that for monthly magazines the recent reading method generated audience estimates which were 86% higher than those produced using the through-the-book method, and that for weekly magazines the average was 27% (10).

ARF

RECENT READING LEVELS
RELATIVE TO THOSE OBTAINED
THROUGH THE BOOK

+86%

+27%

Weeklies

Monthlies

This one finding has generated a storm of controversy in the U.S. such as has not been seen in the advertising research community for some time. The

*References appended
controversy concerns two central issues. The first
issue has to do with the procedure and propriety of
adjusting recent reading levels to conform to those
achieved using the more traditional through-the-
book procedure. The second issue has to do with the
question of which of the two methods is closer to
providing the correct audience estimates.

This paper will confine itself only to the second
issue: the validity of the two methods.

VALIDITY OF THESE METHODS

When the Simmons company first announced that
the recent reading estimates they were producing
were nearly double those which either Simmons or
TGI previously had reported, the recent reading au-
dience estimates were immediately labeled as im-
 plausible first by Simmons, which offered an adjust-
ment procedure to bring the estimates in line with
through-the-book levels, and then by the industry.
Among the most vocal in this regard was Timothy
Joyce, Chairman of the newly-founded Mediamark
Research Inc. (MRI), who a month later was to pro-
duce his own recent reading magazine estimates
which were to compete with the Simmons estimates.
In a broadly distributed internal memorandum,
ostensibly written to assure his sales staff that MRI
"could not possibly show increases remotely ap-
proaching Simmons", he attributed what he then
called a "substantial inflation of reading claims" to
the loose questioning procedure used by Simmons to
establish reading in the publication interval. The
Simmons questionnaire had asked simply whether
or not the publication had been read in the last
month, while MRI had developed what they describ-
ed as a "perfected system" which went on to specify
the length of the publishing interval in great detail,
even to informing the respondent of the specific date
when it began.

The MRI memo was released a month prior to
the publication of their first report. When the MRI
data became available, it was clear to all that their
"perfected" technique had produced results which
were virtually identical to the Simmons recent read-
ing estimates.

Ironically, MRI then was obliged to defend the
same recent reading estimates as being logical and
accurate which earlier they had denounced as im-
plausible.

They now would have us believe that about as
many people read two magazines a day as read the
daily newspaper (6). And despite the fact that the
U.S. Department of Health, Education and Welfare
finds 21.7% of the U.S. adult population to be func-
tionally illiterate (8), they also would have us believe
that 94% of all adults read an average of 11.6 mag-
azine issues in the average month (7).

The root cause of this controversy is the fact
that no one has ever been able to establish an objec-
tive standard of truth — a criterion, if you will —
which the several magazine audience measurement
techniques can be evaluated. The Advertising
Research Foundation has been busily studying this
problem for a number of years with little success,
even having gone so far as to have conducted an un-
successful study in which a former New York City
Police Department fingerprint expert was engaged
as a consultant to try to identify particular readers of
particular magazine copies (3).

TELESCOPING PHENOMENON

All of the ARF's efforts in this regard have been
directed to attempting to validate the through-the-
book procedure, believing that it is not possible to
validate the non-issue specific recent reading
method. Actually, however, it is a simple matter to
demonstrate that respondents are incapable of judg-
ing accurately the recency with which past events
have occurred. Psychologists have been studying
this phenomenon for some time (4) and have gener-
ally concluded that:

(a) the longer the time interval between the event
    and the judgment of the recency of that event,
    the less likely is the judgment to be accurate.
    From this we would expect that the judgment
    of whether a magazine had been read in the
    past month would be less accurate than the
    judgment of whether it had been read in the
    past week.

(b) the longer the time interval between the event
    and the judgment of the recency of that event,
    the more likely is it to be perceived to
    have occurred more recently than it actually
did. From this principle one would expect
that the recent reading method would spurniously favor magazines with longer
publishing intervals where the method requires that recency judgments be made over longer periods of time.

The phenomenon has come popularly to be known as telescoping, and in our view completely explains the fact that the recent reading method produces inflated estimates in general and disproportionately higher estimates for monthlies than for weeklies.

THE TELEVISION TEST

However, except for a few proprietary studies conducted by broadcasters, most of the research on the subject of telescoping has been conducted in the psychological laboratory using simple words or pictures as stimuli and judgments over very short time intervals. In preparation for this paper, therefore, we decided to perform a real life demonstration, using weekly television programs, to show the inability of respondents to recall accurately whether or not an event had occurred even within as short a time period as seven days. We chose to perform the demonstration using weekly television program viewing because, unlike magazine reading, the time of the viewing occasion is precisely known and there is no possibility of complications caused by replicated and parallel viewing.

The study was conducted by telephone using the Bergen County, New Jersey telephone directory as a sampling frame. The sample was limited to female household heads, and all interviewing was conducted after 6 p.m. in order to insure a proper representation of working women. A total of 700 interviews were completed, 100 on each of seven consecutive days divided equally between two field periods; December 9-15, 1980, and January 11-17, 1981.

The interview proceeded as follows: Respondents were read a list of 20 weekly television shows and asked whether each one had been watched in the past 30 days. Then for each program watched, the interviewer asked whether the respondent happened to have watched that show in the past week, that is in the seven days since last (day of week) not including today. Those answering “yes” were classified as recent viewers.

We reasoned that if the respondents’ judgments of the recency of the telecast were accurate, we should observe the same ratings for these shows regardless of the day on which the recent viewing question was asked. However, to the extent that the recency judgments were distorted by the telescoping phenomenon, one would expect to find the ratings to be different depending upon the time interval between the telecast and the interview.

The following chart shows the mean recent viewing rating of these shows aggregated according to the time interval between the day of the telecast and the day of the interview.

![Recent Viewing Ratings by Time Lapse of Interview](image)

The mean ratings are plotted on the vertical axis and on the horizontal axis are plotted the number of days between the day of the telecast and the date of the interview.

The mean rating observed as a function of the time interval from the day of the telecast to the day of the interview is represented by the seven dots and the diagonal line represents the least squares best fit.

As you can see, the longer the time interval between the day of the telecast and the day of the interview, the lower is the mean rating. The Pearson product moment correlation coefficient is .88 and is significant at the .01 level using five degrees of freedom.

This relationship proves conclusively that respondents are incapable of judging accurately whether an event such as their most recent viewing of a weekly television program occurred within the past seven days or not.
FORGETTING or TELESCOPING

If memories were perfect, one would expect to find the same percentage claiming to view on each of the interviewing days regardless of whether the interview was conducted the day after the telecast or six days later. Obviously, memories are not perfect, or we could not observe the relationship you see here.

But what causes it? If these were the only data available one could convincingly offer either of two equally plausible explanations. The first explanation would be that people simply forget with the passage of time, and that the true audience levels are actually higher than the recent viewing estimates would indicate. The second explanation would be that we are looking at the result of telescoping caused by some people imagining that an event which actually occurred eight or more days ago happened within the past seven days.

But perhaps the telescoping concept requires more elaboration, and a concrete example will help: Were I to survey a sample of people on the day following the telecast of a weekly show, and were I to ask whether they had watched that show in the past seven days, virtually all of those who had watched the day before would answer that they had as would some proportion of non-viewers who had actually watched eight days ago, but imagined it to be seven.

The next day, a smaller proportion of such non-viewers who had actually watched nine days ago would falsely answer "yes", and one would expect this proportion to drop with each successive day until the day of the next telecast.

Recognizing that the recent viewing estimates are necessarily in error, and wishing to resolve the question as to whether the declining audience levels were the result of telescoping or simple forgetting, we designed a questioning procedure to provide what we believe to be a more accurate estimate of viewing levels—more accurate because it shortened the recall period from seven days to one in order to minimize problems of memory distortion, and more accurate because it followed the ARF recommendation for obtaining measures of yesterday reading (1). Basically, it was the same method which is used both by Simmons and by MRI for measuring yesterday readership of daily newspapers.

Accordingly, everyone claiming to have viewed the show in the past seven days was asked for the last time she happened to watch it not including to-

day. Those answering "yesterday" on the day following the telecast were then classified as yesterday viewers.

We reasoned that if the recent viewing rating was lower than the yesterday viewing estimate it would argue in favor of simple forgetting. If, on the other hand, the recent viewing rating was higher, it would argue in favor of telescoping caused by confusion of the recency of the last viewing occasion.

This chart compares the mean yesterday rating with the mean recent viewing rating. As you can see, the recent viewing rating was 30% higher, and statistically significant at the .001 level using the method of sample replicates with nine degrees of freedom (2). This highly significant difference supports the validity of the telescoping hypothesis.

**TELEVISION RATINGS BY QUESTIONING METHOD**

<table>
<thead>
<tr>
<th>14.4</th>
<th>18.7</th>
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| *+30%*

*P < .001

THE MAGAZINE TEST
Mindful, however, of the fact that our basic interest is with magazine audience measurement rather than television viewing, we performed the same exercise using nine weekly publications.*

*Actually ten publications were included. Midnight Globe was subsequently deleted after learning of a name change.
Here we produced two estimates of weekly reading: a recent reading estimate based on the past seven day claim and the other based on the number of yesterday readers.

However, since we know that some consumers read some magazine issues on more than one day, it was necessary to take that fact into account in order to generate an average issue audience estimate. Accordingly, two separate attempts were made to estimate the incidence of first time yesterday reading of the issue via direct questioning for each magazine. Without going into detail, suffice it to say that both attempts produced first time reading estimates which when converted to weekly ratings were less than half the recent reading estimates.

Being reluctant to conclude that the recent reading estimates for weekly magazines are more than twice as large as they should be, we also explored the possibility of correcting the yesterday reading level for each magazine by dividing the yesterday reading incidence by the mean number of reading days as published in the 1980 Simmons Report.

### YESTERDAY RECALL ADJUSTMENT FACTORS

<table>
<thead>
<tr>
<th>Title</th>
<th>Reading Days</th>
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<tbody>
<tr>
<td>National Enquirer</td>
<td>2.2</td>
</tr>
<tr>
<td>Newsweek</td>
<td>1.8</td>
</tr>
<tr>
<td>New York</td>
<td>1.8</td>
</tr>
<tr>
<td>The New Yorker</td>
<td>2.4</td>
</tr>
<tr>
<td>People</td>
<td>1.8</td>
</tr>
<tr>
<td>The Star</td>
<td>2.3</td>
</tr>
<tr>
<td>Time</td>
<td>2.1</td>
</tr>
<tr>
<td>TV Guide</td>
<td>5.5</td>
</tr>
<tr>
<td>U.S. News &amp; World Report</td>
<td>2.1</td>
</tr>
</tbody>
</table>

When we compared the mean rating thus obtained with the 1980 Simmons through-the-book ratings drawn from a roughly comparable sample (female homemakers with listed telephones, living in the New York ADI), we found that the means were very close and that the ratings on a magazine by magazine basis correlated +.96 with each other.

**THROUGH-THE-BOOK VS. YESTERDAY RECALL RATINGS**

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<tbody>
<tr>
<td>SMRB</td>
<td>11.4</td>
</tr>
<tr>
<td>TTB</td>
<td>12.0</td>
</tr>
<tr>
<td>Yesterday Recall</td>
<td>+5%</td>
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In other words, the adjusted yesterday recall estimates were quite comparable with those obtained through-the-book.

The next step was to compare these estimates with those obtained using the recent reading method. What we found is seen below. The recent reading estimates were 26% higher, a difference, by the way, which you may recall is virtually identical to the +27% difference that was reported for weekly magazines in the ARF Comparability Study, and very close to the +30% difference which you saw for television viewing when no correction for multiple day viewing was required.
3. In the case of magazines, the same yesterday recall method, modified to accommodate the fact that magazines are frequently read on more than one day, produces audience estimates for weekly magazines which closely approximate those obtained using through-the-book procedures.

4. When the recent reading magazine estimates were compared with those obtained on the basis of yesterday recall, the recent reading estimates produced a 26% average relative to the yesterday recall estimates.

5. The 26% average is roughly comparable to the 30% average which was reported for television viewing where no adjustment for multiple day exposure was necessary. Moreover, it is virtually identical to the 27% average which the ARF reported for the recent reading method relative to through-the-book for weekly magazines.

We interpret these facts to mean that the recent reading method significantly overstates magazine audiences and does so by a process called telescoping caused by the inability of the respondent to judge whether or not a particular event has occurred within the publication interval.

Although we did not directly address this issue for monthly publications as we did for weeklies, all of the information available both in the psychological literature and in the ARF Study suggests that as the publishing interval increases so does the severity of the telescoping problem.

As a result, not only does the recent reading method produce spurious audience estimates, it does so in such a way as to seriously disadvantage weekly publications relative to monthlies.

CONCLUSION

1. The recent reading method in theory is perfectly reasonable if one can accept the assumption that respondents can not only accurately remember that they have been exposed to a particular media vehicle, but also that they can accurately judge the recency of the last such occurrence.

However, we have proven conclusively that consumers are incapable of making accurate judgments of whether a media exposure—in this case the viewing of a weekly television show—occurred within the past seven days or not. If consumers were capable of making such judgments, there is no way that reported audience levels could show the pattern of decline we have seen as the time interval increases between the day of the telecast and the day of the interview.

2. The recency method produces weekly television audience estimates which are about 30% higher than the estimates which are produced on the basis of yesterday recall using the procedure recommended by the ARF to measure yesterday reading of newspapers.
References


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