ABSTRACT

Two hundred college students participated in a comparison of film and videotape television content. After viewing a three-minute dance segment on either film or videotape, students in the experimental groups completed a set of 15 bipolar adjective scales relating to organizational and aesthetic components and made judgments of the technical quality and the quality of the content. Control groups made similar ratings of filmed television programs and of videotaped television; all groups viewed their segments on a 25-inch television monitor. Results indicated that the mode of visual recording affects subjects' organizational and aesthetic perceptions of the visual content of television segments. The type of visual mode appears to interact with the content of the segment and the sex of the viewer to affect cognitive organization and liking for the presentation. Females appeared to find both film and videotape easier to organize cognitively than did males. The videotaped segment was rated significantly superior to the filmed version by males, while females saw essentially no differences between the two. (AA)
VIEWER RESPONSE SETS TO FILMED AND VIDEO TAPE TELEVISION CONTENT

by

Thomas R. Donohue

and

William A. Donohue

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY

Thomas R. Donohue

William A. Donohue

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER.

Thomas R. Donohue is an associate professor and Chairman of the Department of Communication Arts at the University of Hartford.

William A. Donohue is an assistant professor in the Department of Communication at Michigan State University.
It has been suggested that individuals have learned different response sets to film and video tape that affects their perceptions of the content of each. Specific differences that have been attributed to each visual mode include both esthetic and technical variables. For instance, McLuhan (1964) and Maloney (1969) argue that the television image is of considerably higher abstraction (less information) than the film screen image and because the level of iconic information is greater in film, the mode is less participative and intellectual and therefore less effective as a medium of instruction.

Another difference that may affect response sets to the two modes is related to the perceived immediacy possessed by each. The gradual technical improvement of video tape has made it nearly, if not totally, indistinguishable from live television. Moreover, it is generally understood that except in the case of news film, shooting and developing film takes many weeks or months. Thus, video tape may have acquired a quality of immediacy or spontaneity that affords the viewer more of a feeling of participating in an event, while the time lapse and necessarily less dated nature of the content in film may tend to remove the viewer from the situation.

Lastly, the film medium has been used in conjunction with bigger budgets and production values than video tape which until very recently has been confined to the more contrived environment of the studio. For dramatic content the superior portability, level of definition and production value of film may contribute to a greater sense of reality than is possible for video tape.

The claimed perceptual differences attributed to each visual mode and the uncertainties regarding how these differing response sets, if they
exist, led this investigator to question how identical segments would be perceived when each was viewed on a television monitor. Specifically, the purpose of this investigation was to determine how organizational and aesthetic differences inherent in each mode affected student's perceptions of a filmed and video taped event transmitted via television.

A three minute film and video tape were viewed by college students. Subjects (n = 50, N = 200) were exposed to one of four conditions: (1) film on television; (2) video tape on television; (3) filmed television programs - control and; (4) video taped television - control. Subjects then marked 15 bipolar adjectival scales relating to the organizational and aesthetic components and indicated comparative judgments of the technical quality and quality of the content of the segments.

In terms of hypotheses, it was expected that: (1) females would judge both visual modes to be significantly more organized than males; (2) students would perceive the filmed version to be significantly more esthetically appealing than the control groups and the video tape groups; (3) males would rate production quality to be significantly higher than females regardless of visual mode and (4) an interaction between the factors of sex and treatment would occur the nature of which would find males who viewed the filmed version judging the quality of the content to be significantly higher than all other groups.

The rationale for these expectations is that because the nature of the content should have been highly visually pleasing and perhaps erotic for males, they would have more difficulty cognitively organizing the event. Secondly, even though it loses definition when shown on television,
the film mode would still be perceived to possess greater production value and thus be more esthetically pleasing than videotape. Thirdly, the masculine oriented nature of the content would cause elevated judgments of the technical quality of both modes when compared to females. Lastly, it be expected that the content would be found to be most pleasing to males in the film mode.

METHOD

The method of answering the questions posed by this investigation involved three procedures: (1) an identical film and video tape version of a content segment had to be produced; (2) an instrument to measure perceptual differences had to be selected; (3) the viewing and evaluation of the segments by students.

Program Segment Production

The content segment used for the purposes of this investigation was a three minute dance scene done to music from the rock musical Godspell. The dance sequence was of a modern nature and had many physical movements that may have been perceived as erotic. The dancer was a very attractive, well proportioned female who was unfamiliar to any of the subjects. A single panasonic television camera and a 16 mm film camera were placed side by side and the lenses were focused to reveal a full length shot of the dancer. Each camera man was instructed to keep the dancer in the middle of the frame during the recording. The dance was recorded in its entirety and no editing was done in either mode. Music was synchronized with each of the segments so that the segments were identical.
Selection of a Measuring Instrument

To measure perceptual differences among the modes of presentation, an instrument was needed that would reveal elemental and structural differences in each of the message versions. To provide such data, bipolar adjectival scales developed by Anderson (1968) and employed by Donohue (1973) to measure perceptions of political commercials were selected. The scales were designed to measure similar dimensions of connotative meaning found in various media and seemed particularly appropriate because they represented two dimensions of meaning that seem to be important in any assessment of the intrinsic differences between film and video tape, i.e., the perceived organization of the material and its esthetic appeal. Ten scales measured the perceived organization of the various modes with scales such as: whole/partial; direct/indirect; clear/confused; perfect/imperfect; definite/vague; organized/unorganized; stable/changeable; formed/formless; complete/incomplete and; precise/imprecise. Five scales measured the esthetic dimension of the modes with scales such as: beautiful/ugly; interesting/boring; exciting/unexciting; colorful/colorless and; artful/artless.

Student Responses To Messages

Subjects were randomly assigned to groups and groups were randomly assigned to treatments. Students viewed the video tape and film on television in the television studio on a 25 inch screen in groups of about 10 to 15. At the completion of the segment, forms were distributed and subjects were asked to evaluate the mode using the fifteen scales. In addition, subjects were asked to compare the technical quality of the production to others of a similar nature they had seen and to indicate a
comparative judgment of the quality of the content or dance sequence.

Statistical analysis consisted of analysis of variance of mean scores and the aposteriori Duncan Multiple Range Test (DMRT).

RESULTS

The first hypothesis predicted that females would judge the content to be significantly more organized than males regardless of visual mode. The results of the experiment clearly confirmed the research hypothesis when mean scores were summed over the organizational dimension (See Table 1). On individual scales, however, confirmation for the research hypothesis was much less evident. On the organized/unorganized scale, the female video tape control group perceived the presentations to be significantly more organized than both the male film and video tape control groups. Additionally, males who viewed the film on television perceived the segment to be significantly more organized than the following groups: (1) male film control; (2) male video tape control and; (3) female video tape. Lastly, the male video tape group perceived the segment to be significantly more organized than the male film control and video tape control groups ($F = 6.38, p < .001$). No other differences were significant.

Analysis of other individual scales revealed similar results. On the formed/formless scale, the male video tape group perceived the segment to be significantly more formed than all but the male film on TV group. The male film on TV group judged the segment to be significantly more organized than the female film in TV group ($F = 3.57, p < .05$).
Results for the **stable/changeable** scale revealed that both the film on TV and film control groups perceived their treatments to be significantly more changeable than the video tape control group, regardless of sex. The video tape groups perceived their treatments to be significantly more stable than the film control group ($F = 4.65, p < .001$). Lastly, the video tape control group perceived that mode of recording to be significantly less clear than the film control group on the **clear/confused** scale. ($F = 3.18, p < .05$).

The second hypothesis predicted that students would perceive the filmed television version to be significantly more esthetically appealing than the video taped version or either control group. The results failed to confirm the research hypothesis when mean scores were summed over the esthetic dimension. Moreover, there were no significant differences among any of the treatment groups. Analysis of many individual scales revealed results that were opposite of those predicted. For instance, on the **exciting/unexciting** scale males who viewed the video tape version perceived the segment to be significantly more exciting than all other groups. Males who viewed the filmed segment judged it to be significantly more exciting than the female video tape and film control groups. Additionally, the female film on TV group perceived their segment to be significantly more exciting than the female video tape and film control groups ($F = 8.73, p < .001$).

Results for the **beautiful/ugly** scale revealed that the male VTR group perceived the segment to be significantly more beautiful than all other groups. The males who viewed the film on TV segment judged the segment to be significantly more beautiful than females who saw the video taped.
version \((F = 3.12, p < .05)\).

Analysis of the **colorful/colorless** scale indicated that the film on TV group perceived the segment to be significantly more colorful than the video tape and video tape control groups. Also, the video tape group judged the segment to be significantly more colorful than the video tape control groups \((F = 19.79, p < .001)\).

Results for the **interesting/dull** scale indicated that the video tape recording group perceived the segment to be significantly more interesting than all other groups \((F = 5.42, p < .01)\).

Lastly, results for the **artful/artless** scale indicated that females who viewed the video tape judged that version to be significantly more artless than all other groups \((F = 2.77, p < .05)\).

The third hypothesis predicted that males would rate the production quality significantly higher than females regardless of visual mode. The results of the investigation provided only partial confirmation for the research hypothesis. In response to the question, "compared to other video reproductions you have seen how would you rate the technical quality of this production?" males who viewed the video taped version, judged its technical quality to be significantly higher than all other treatment groups (See Table 3). Unexpectedly, males who viewed the film on television version did not find the technical quality of the segment to be significantly higher than either of the female groups. Again, this finding was contrary to the expectation that the filmed version would be perceived to be more professionally done. It should be noted that subjects judged both segments to be of comparable quality to those they were used to seeing.
The last hypothesis predicted an interaction between the factors of sex and visual mode, the direction of which would find males who viewed the filmed version to judging the quality of the content (the dance) to be significantly higher than all other treatment groups. Again, the results failed to provide confirmation for the hypothesis. As predicted, males found the quality of the dance to be significantly higher than females but only in one treatment as males who viewed the film on TV version did not differ significantly in their judgments. In response to the question "compared to other dances you have seen on television, how would you rate the quality of the dance you have just seen?, only males who viewed the video taped segment judged the overall quality of the dance to be significantly higher than all other treatment groups. (See Table 4). This finding, too, was surprising in light of the prediction that the film version would enhance perceptions of the content.

DISCUSSION

The results of this investigation clearly demonstrate that the mode of visual recording affects subjects organizational and esthetic perceptions of the visual content of television segments. Briefly, the type of visual mode apparently interacts with the content of the segment and the sex of the viewer to affect persons' cognitive organization and liking of the presentation.

A major implication of this investigation is that females apparently find both modes of recording - film and video tape - easier to cognitively organize than do males. The fact that both female control groups as well as the treatment groups perceived the modes to be significantly more
organized than any male control or treatment groups lends support for such a conclusion. Although, the seemingly exotic nature of the content would have been expected to affect males' perceptions of the structure of the event, the judgments of the male control groups negates the argument that the content was responsible for direction of the organizational perceptions.

A second major implication is that film apparently does not possess a superior technical advantage over video tape in terms of perceived professionalism. Surprisingly, and contrary to expectations, the video taped segment was perceived to be significantly superior to the filmed version by males, while females saw essentially no differences between the two. Perhaps the "slickness" and polish claimed for film by theorists is not universally perceived by other viewers. Since video tape is no longer a novelty and in ever increasing use, people (particularly males) have become used to it and even find it more pleasing than film because of the spontaneity it lends to events. The findings that males often judged the video taped version to be significantly more esthetically pleasing than other treatment groups on individual esthetic scales and that males who viewed the video taped segment judged it to be of significantly higher production quality than film lends considerable support for this contention.

The third implication of this investigation is that the perceived quality of the content of a video recording is apparently affected by the nature of the content. That males appreciated the quality of the dance in the video tape more and found it more esthetically pleasing in both modes on individual esthetic scales than females would lead to the conclusion that attraction to the content affects, in certain cases, evaluations of the quality of the presentation.
Lastly, in the case of something as continuous as a complete dance sequence that has the appearance of perhaps an improvisation, perceptions of the quality of the event may be enhanced by the indistinguishable from live "look" of video tape.

LIMITATIONS

There are certain limitations inherent in this study of which the reader should be aware. First, although the quality of the video tape was as good as a one half inch system can provide, it was obviously not up to two inch, broadcast standards. If possible, the study should be replicated using broadcast quality video tape and 35 mm film. Secondly, students were forced to view as a group whose attention was artificially focused on the television screen. The experiment should be replicated in a more natural viewing environment.
TABLE 1

Perceived Organizational Differences in Film and Video Taped Modes (mean scores summed over 10 scales)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MALES</td>
<td>3.21a</td>
<td></td>
</tr>
<tr>
<td>FEMALES</td>
<td>3.88b</td>
<td></td>
</tr>
</tbody>
</table>

($F = 4.12, p < .05, 1 \text{ df}$)

Means having different subscripts are significantly different at the .05 level of confidence.
<table>
<thead>
<tr>
<th></th>
<th>FILM CONTROL</th>
<th>VIDEO TAPE CONTROL</th>
<th>FILM</th>
<th>VIDEOTAPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>3.52</td>
<td>3.48</td>
<td>3.56</td>
<td>3.60</td>
</tr>
<tr>
<td>FEMALE</td>
<td>4.08</td>
<td>4.20</td>
<td>3.68</td>
<td>3.92</td>
</tr>
</tbody>
</table>

No significant differences between means at the .05 level of confidence.
### Table 3

Comparative Judgments of the Technical Quality of the Film and Videotape Modes

<table>
<thead>
<tr>
<th></th>
<th>Film</th>
<th>Videotape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>4.66a</td>
<td>3.04b</td>
</tr>
<tr>
<td>Female</td>
<td>4.00a</td>
<td>4.08a</td>
</tr>
</tbody>
</table>

Means having different subscripts are significantly different at the .05 level via DMRT,

\( F = 12.80, p < .001 \)
### TABLE 4

Comparative Judgments of the Quality of the Segment's Content

<table>
<thead>
<tr>
<th></th>
<th>FILM</th>
<th>VIDEOTAPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALES</td>
<td>4.32a</td>
<td>2.52b</td>
</tr>
<tr>
<td>FEMALES</td>
<td>4.28a</td>
<td>4.56a</td>
</tr>
</tbody>
</table>

Means having differing subscripts are significantly different at the .05 level of confidence via DMRT:

\[
F = 7.49, \quad p < .01
\]
References


