In a study of the relationship between kinesics and bias, video tapes of two anchormen of local news shows in New York City were examined. The purposes of the investigation were to determine whether each anchorman would exhibit specific kinesic behaviors associated with audience perceptions of positive bias, negative bias, or neutrality; and to discover whether the two men displayed common kinesic signals when they were perceived as positively biased, negatively biased, or neutral. As a first step in the study, 58 viewers were asked to watch 22 video taped segments involving each anchorman. Each segment consisted of one story that dealt with a specific person or event. The viewers then completed a bias rating instrument, which gauged their impressions of the direction and degree of bias evidenced by the anchorman about the person or event in each story. As a second step, six segments (the two rated most positively, the two rated most negatively, and the two rated most neutral) were coded using a kinesic notation system. The final step was a frequency tally, in which the number of times a movement occurred in each segment was noted. The findings showed that each anchorman did exhibit kinesic behaviors consistent with the audience's perception of his direction of bias. In addition, specific kinesic behaviors associated with audience perceptions of bias or neutrality were found to be idiosyncratic. (FL)
A KINESIC ANALYSIS OF PERCEIVED BIAS IN
TELEVISION ANCHORMEN: TWO CASE STUDIES

Freda L. Remmers
Kean College of New Jersey

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BACKGROUND: There is general concurrence among authorities in the field of broadcast journalism that complete objectivity, or freedom from bias, in television newscasting is not possible because of the nature of the three interrelated elements involved — the individual viewer, the newscaster, and the medium itself. Much has been written about the factors inherent in each of these three elements which make objectivity unattainable.

Previous studies of bias have approached the subject from a variety of viewpoints and have used a variety of methodologies. Among the most frequent bias studies done are those dealing with the content analysis of newscasts. Most of these studies fall into one of two main categories. First are the more general studies comparing overall treatment of the news by the three major networks. Second are studies looking for specific bias areas within network newscasts.

Some studies ask viewers to determine if bias exists in the news. Other more specialized studies ask viewers to judge news coverage that applies directly to them.

One area which generally has been overlooked is the relationship between kinesics and bias. The kinesic, or nonverbal, part of the communication process is the part which most authorities agree carries a higher percentage of meaning and more credibility than does the verbal component.

Some researchers have looked at visual elements in television news.
Two related studies used simulated television newscasts to determine if camera angle and bodily activity will affect the viewer's perception. Tiemens recorded three different speakers on video tape from three different angles to see if camera angle is related to source credibility.\(^6\) In a follow-up study, Mandell and Shaw sought to find how well television images could unconsciously influence judgments about, not a newscaster, but a person presented as the subject in a short newscast by use of visuals of that person photographed from high, medium, and low angles and while engaged in no activity or slight activity.\(^7\)

One study which does examine bias in news from a nonverbal perspective was conducted by Tankard, et al. As in the experiments reported above, this study used simulated newscasts. Also, this study examined only two signals — raised eyebrows and smiles — at the ends of stories to determine the relationship between the two signals and perceived bias.\(^8\)

**PURPOSE:** This study seeks to shift perspective and examine bias in actual newscasters from a different viewpoint. The study involves a detailed examination of video tapes of two anchormen of local New York City network affiliated television stations. These case studies focus on the question: For each individual anchorman, will there be specific kinesic behaviors associated with audience perceptions of positive bias, negative bias, or neutrality. The study also involves a comparison between the two men to determine if there are certain common kinesic signals that both project when they are perceived as positively biased, negatively biased, or neutral. This study deals with perceived bias. A story is considered as biased when sample viewers perceive it as being so.
LIMITATIONS: This study is limited to anchormen so the kinesic analysis can be limited to head, face, upper torso, arms, and hands. This limitation is desirable because of time considerations, the detailed analysis of any kind of behavior being extraordinarily voracious. The study is limited to only two anchormen for the same reason — the extensive time period required to complete a detailed kinesic analysis.

PROCEDURES: The author video taped two one-hour newscasts of each anchorman and edited out twenty-two segments for each anchorman. Each segment consists of one story which deals with one specific person or event reported solely by the anchorman.

The bias instrument consisted of forty-four questions, one for each segment. The fifty-eight viewers were asked to respond to a question asking them to indicate their impression of the direction and the degree of bias evidenced by the anchorman about the main person or event in the story. Ratings were on a seven-step, interval-type scale on which the center indicated "no bias" and the ends were anchored by "extremely favorable" and "extremely unfavorable." A sample of the instrument follows:

1. What is the anchorman's attitude about (person or event)?

   extremely favorable _____ _____ _____ _____ _____ _____ _____ extremely unfavorable

The bias instruments were coded one through seven to correspond to the positions "extremely favorable" through "extremely unfavorable" on each question. The responses were processed to determine for each segment the mean and the standard deviation. An associate then selected six
segments of each anchorman based on these results. He selected, for each anchorman, the two segments rated most positively with the smallest standard deviation, the two segments rated most negatively with the smallest standard deviation, and the two segments rated most neutrally with the smallest standard deviation. The author was advised which twelve segments were selected for kinesic analysis but was not advised which bias condition each of the segments represented until the kinesic analysis was completed.

After examining a number of kinesic notation systems, the author chose the "Notation for Facial Postures and Bodily Position" developed by Kendon and Ex. This notation system includes all the areas needed for this particular study: eyes, brows, forehead, mouth, head positions, hands and arms, and shoulder and trunk positions. Using Kendon and Ex as a basis, the author developed additional notations for behaviors not expressly covered by Kendon and Ex. For example, Kendon and Ex use only seven very general head position notations. Because the head is the major area of activity in the tapes, the author developed twenty-nine additional symbols to more specifically code behaviors.

Since there is constant audio during each segment, the author transcribed the audio portion of the segments and made the kinesic notations on words and spaces between words. For example:

![Kinesic notation example]
This system works because there is a constant verbal component with the nonverbal. The system would not work in any study with long pauses or absence of words.

In addition, for each of the twelve segments, written descriptions of the anchorman's apparel, the camera angle, the visuals present, size and position of the anchorman on the screen, and furniture and props visible were compiled.

Test-retest reliability of the analysis was demonstrated by the author's charting of two segments for each anchorman two months following the initial charting of those segments. The chartings were identical. Rater reliability of the analysis was demonstrated by having a second analyst chart portions of the tape. The second analyst verified the original charting with only one minor exception.

ANALYSIS OF DATA: Following completion of the kinesic analysis, a frequency tally was done. This consisted of counting the number of times each position or movement occurred in each segment. Each of the sixty-three notation symbols was counted. Then various combinations of symbols (e.g., all forward head movements) were counted.

Before the statistical analysis could be completed, one adjustment was necessary in dealing with the frequency statistics. The length of the segments varied widely (from 33.2 seconds to 8.8 seconds), and to deal with simple frequency of occurrence of a behavior would not be accurate. So each frequency figure was adjusted by dividing the number of occurrences by the number of seconds the segment lasted. The resulting number was multiplied by one hundred so the results could be reported in terms of frequency of occurrence per one hundred seconds.
To test the null hypothesis that kinesic behaviors will be equally distributed across the three bias conditions (positive, negative, neutral), chi-square was used. For each category of kinesic behavior (symbol or combination of symbols) a 2 x 3 chi-square was computed for the two anchormen across the three levels of perceived bias. Where chi-square was significant, a follow-up 1 x 3 chi-square was computed to determine whether the difference from the expected distribution was related to the bias condition. Fourteen symbols or combinations of symbols occurred frequently enough to be analyzed statistically using chi-square.

A certain amount of data did not occur with sufficient frequency or could not appropriately be analyzed using chi-square. The data include both single kinesic behaviors, placement of behaviors within stories, and sequences of behaviors, along with descriptions of attire, graphics, and camera positions. These elements were observed and reported.

RESULTS: Under conditions of perceived positive bias Anchorman A exhibits five behaviors with more frequency than could be expected by chance: head movements to the left \( (x^2=38.21; \text{df}=2; p < .001) \); head movements in a downward and forward direction \( (x^2=13.38; \text{df}=2; p < .01) \); continuous up and down head movement \( (x^2=94.06; \text{df}=2; p < .001) \); head movements in a forward direction \( (x^2=7.37; \text{df}=2; p < .05) \). Observation of the data which were not analyzed statistically reveals other consistencies for Anchorman A in the positive condition which do not occur in the other two conditions. He signals the end of both positive stories with a half nod downward head movement. (Anchorman A's head movements at the ends of stories may be key determinants of the audience's perception of his direction of bias.) In the category of shoulder and trunk movement,
Anchorman A moves the most in the positive condition, but this movement is accounted for by only one story. Except for one movement (a lowering of the left shoulder) all of his positive condition movements are downward/forward movements occurring concurrently with head moves. One other behavior occurs only in Anchorman A's positive stories — a slight eyebrow raise.

Under conditions of perceived neutrality Anchorman A exhibits one behavior with more frequency than could be expected by chance: percentage of time head is down looking at script \( (x^2=7.77; df=2; p < .05) \). He exhibits three behaviors with less frequency than could be expected by chance: head moves to the left \( (x^2=38.21; df=2; p < .001) \); eye blinks \( (x^2=11.22; df=2; p < .01) \); and head moves in a forward direction (does not occur). As in the positive condition, Anchorman A again signals the end of both neutral stories in a distinctive and consistent way; he looks down at his script on the last word of both neutral stories. Anchorman A exhibits no other consistent behaviors in the neutral condition.

Under conditions of perceived negative bias Anchorman A exhibits two behaviors with less frequency than could be expected by chance: forward head movements (does not occur); and continuous up and down head movements (does not occur). Observation of data which were not analyzed statistically reveals other consistencies for Anchorman A in the negative condition which do not appear in the other two conditions. Anchorman A's only consistency in beginning behavior occurs in the negative condition. In both negative stories he makes a downward head movement (a half nod) in the first sentence. As in the other conditions, Anchorman A signals the ending of both negative stories in a distinctive way. Immediately following the last word of both negative stories he looks down at his script. This ending behavior is
different from the ending behavior in the positive and neutral conditions.

He exhibits two other behaviors only toward the end of negative stories:
an upward and backward head movement that takes three syllables to complete;
and a body movement upward, backward, and to the right. In addition, at
the end of both negative stories, after the last word, Anchorman A's mouth
assumes a position that does not occur at any other place in the charting.
His lips are drawn tightly together while the corners of his mouth are
drawn slightly downward. In the category of shoulder and trunk movement,
when Anchorman A is perceived as negative, his body is completely rigid
except for a right body lift which occurs at the end of each negative story.
Anchorman A's only other consistency in the matters under observation is in
eyebrow movement. He does not raise his eyebrows during negative stories,
but does raise them in positive and neutral stories.

In summary, several behaviors stand out as possible key determinants
of how Anchorman A is perceived. The more positively he is perceived, the
more movement he exhibits; his body is almost completely rigid in negative
conditions. The possibility seems to exist that Anchorman A might be over-
compensating when dealing with potentially negative material. His awareness
may make him tend to be more careful of movements and expressions, and,
therefore, more rigid. The point should also be made that there are less
data to report (fewer consistencies) in neutral conditions. It appears that
positive and negative perceptions of bias occur when behaviors are clearly
defined. Also, Anchorman A's consistency in ending behaviors, discussed above,
seems to be a key determinant of how the audience perceives him in terms of
bias. These ending behavior consistencies are certainly worthy of further
research.
Anchorman B, under conditions of perceived positive bias, exhibits the following three behaviors with more frequency than could be expected by chance: forward head moves \( (x^2=6.98; \, df=2; \, p < .05) \); upward and backward head moves \( (x^2=6.89; \, df=2; \, p < .05) \); and backward head moves \( (x^2=9.15; \, df=2; \, p < .05) \). One behavior occurs with significantly less frequency than would be expected by chance: a continuous up and down head movement (shaking one's head "yes") \( (x^2=6.90; \, df=2; \, p < .05) \). Observation of data not analyzed statistically reveals other consistencies for Anchorman B in the positive condition. He exhibits one sequence of head moves that occurs only in the positive condition. The sequence consists of several upward and backward head lifts followed by a downward movement of the head. Another head move that occurs only in positive stories is a slight forward and downward head movement where the face comes toward the viewer.

Under conditions of perceived neutrality none of Anchorman B's behaviors occur with greater or less frequency than would be expected by chance. The only consistency noted for Anchorman B is the occurrence of a slight continuous up and down head movement (shaking one's head "yes") toward the end of both neutral stories. This behavior does not occur at the endings of other stories.

Under conditions of perceived negative bias Anchorman B exhibits two behaviors with less frequency than would be expected by chance: head movements in an upward and backward direction \( (x^2=6.89; \, df=2; \, p < .05) \); and head movements in a backward direction \( (x^2=9.15; \, df=2; \, p < .05) \). Anchorman B also exhibits two signals which are distinctly his and occur consistently in negative conditions. First is the continuous slight, rapid left to right head movement (shaking one's head "no") which occurs only in negative stories. Second is the forward and slightly downward head movement where the face comes
toward the viewer. This behavior occurs five times in negative stories, once in positive, and does not occur in neutral stories. Anchorman B's shoulders and trunk move the least when he is perceived as negative. His positive and neutral movements are about equal. Two observations bear reporting in the category of eye and brow movement. First, widening of the eyes is a distinctive Anchorman B behavior, and it occurs only in positive and neutral stories. He does not widen his eyes in negative stories. Second, eyebrow raises occur less in Anchorman B's negative stories. He raises his eyebrows only three times in negative conditions, and these three raises occur on words which might be considered to have negative connotations: "killed," "resign," and (Communist) "fire."

In summary, several behaviors stand out as possible key determinants of how Anchorman B is perceived. He moves less in negative conditions, and the possibility of overcompensating should again be raised. As with Anchorman A, there are less data to report (fewer consistencies) in the neutral condition. One other observation that seems worthy of noting is Anchorman B's absence of "shaking his head 'yes'" in positive conditions and his pattern of "shaking his head 'no'" in negative conditions.

Of the fourteen symbols or combinations of symbols that occurred frequently enough to be analyzed statistically using chi-square, three were not significant for either anchorman in any of the three bias conditions: head movements to the right; downward head movements; and normal or inexpressive mouth position, closed. Also, there appears to be no relation between perceived bias and such non-behavior elements as camera movement, shading of the anchorman's suit (taping was done in black and white), size and position of the anchorman on the screen, visuals behind the anchorman, or presence
on camera of a desk, pen, or script.

The specific null hypothesis tested in this investigation states that kinesic behaviors will be equally distributed across the three bias conditions. As the data reported indicate, the null hypothesis is rejected. Each individual anchorman does exhibit certain kinesic behaviors consistent with the audience's perception of his direction of bias.

This study also sought to compare the two anchormen to determine if there were certain common kinesic signals that both project when they are perceived as positively biased, negatively biased, or neutral. Only two commonalities can be reported from all the data gathered. First, the behavior "forward head movement" occurs in the positive condition for both men with greater frequency than would be expected by chance. Second, both men move the least in the negative condition. No other consistencies can be reported. These two consistencies could have occurred by chance. A key finding of this study, therefore, is that the specific kinesic behaviors associated with audience perceptions of positive or negative bias or neutrality are idiosyncratic.

This study has shown that kinesic analysis can be applied to the variable of perceived bias to determine whether certain behaviors occur differently in the three conditions of perceived bias than would be expected if perception of bias were unrelated to kinesic factors. This study has also shown that the specific kinesic charting system used is a useful tool for research of this kind.

SUGGESTIONS FOR FURTHER RESEARCH: This study, of necessity, was limited in scope. Since the methodology and instruments developed for the present study have proved useful, a follow-up study with a broader scope would be valuable.
An expanded study could include more anchors with more segments analyzed for each in the three bias conditions. A study could also include kinesic analysis of anchorwomen, compared with other anchorwomen and with anchormen. The methodology of this study could also be applied to other newscast personnel, e.g., commentators, on-the-spot reporters, weathermen, sportscasters, etc.

The methodology of the present study could also be applied to variables other than bias. A kinesic analysis of perceived credibility in television newscasters might provide some interesting insights.

The possibility also exists for combining this type of kinesic analysis with an analysis of the verbal components of a newscaster's presentation. Such verbal components as pitch, volume, rate, and emphasis could be examined in tandem with the nonverbal components.

Since this particular notation system has proven useful in analysis of video tape, the same system has almost limitless potential for application to other television programming. For example, different variables could be examined in interview shows, documentaries, educational television shows, and children's shows. Also, this notation system could be used to analyze other video tapes where such variables as bias or credibility are important. For example, teachers could be video taped in classroom situations and their kinesic signals analyzed.

In summary, the results of the present study suggest that a follow-up study with a broader scope would be valuable. Also, the methodology of the present study is applicable to analysis of other newscast personnel, variables other than bias, verbal components in tandem with nonverbal, other television programming, and other easily video taped situations.
REFERENCES


3 Two examples are Ralph K. Martin, et al., "Opinion Agreement and Accuracy between Editors and Their Readers," Journalism Quarterly, XLIX (Autumn 1972), 460; and John P. Robinson, "Perceived Media Bias and the 1968 Vote: Can the Media Affect Behavior After All?" Journalism Quarterly, XLIX (Summer 1972), 239-246.


