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THE EFFECTS OF THREE TYPES OF NEWSPAPER INACCURACIES
ON READER PERCEPTIONS OF REPORTER
AND EDITOR BIAS

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Douglas Joseph Kocher

June 1979

1301877

ACKNOWLEDGMENTS

The cooperation of many individuals made this research possible. I am indebted to David Powell of the Tennessee Valley Authority for providing documents from which many of the ideas for this dissertation arose, and to Margie LeCoultre for securing permission for the experiment described herein.

Drs. Donald Shaw and Darrel Holt kindly allowed me to pre-test materials for the experiment in their courses. I am grateful to Julie Walker, doctoral student in English at Purdue University, for coordinating the pre-test at that institution, and for providing suggestions for improvement of the pre-test questionnaire items.

My thanks to fellow graduate students Dan and Florence Riffe, who reviewed drafts of this dissertation and capably assisted in the pre-tests, and to Susan Strickland and Peggy Meinders for assisting in teaching my class during especially busy times. Thanks are also due Venita Zinn, who graciously consented to be the confederate for the actual experiment, and to Ellen Bennett for patiently listening to many questions and offering sound advice.

My committee was superb. Drs. Everett, Crook, and Nimmo provided many useful suggestions, were always available, and set a standard in their prompt review of drafts for this dissertation. Working with them made this research an especially pleasant experience.

To my chairman, Eugene F. Shaw, I can think of no greater compliment than to say I could not have had a better advisor. The many

hours spent with him developing the ideas for this dissertation have left a lasting positive impression. As a communication researcher he has set an example for me to follow.

Finally, I want to thank two individuals whose expertise immeasurably eased the assorted pains of graduation: Margaret Cook, who runs the Communications Graduate Studies office with friendliness and skill, and who typed this dissertation; and Georgia Bunn, Graduate School Thesis Consultant, whose many kindnesses during my six years at The University of Tennessee will not be forgotten.

ABSTRACT

The purpose of this study was to determine the effect of news story inaccuracies on readers' perceptions of reporter and editor bias. Three types of inaccuracies were stipulated for research purposes: belief-discrepant, belief-supportive, and belief-unrelated. It was hypothesized that belief-discrepant inaccuracies detected in news stories, unlike belief-supportive or belief-unrelated inaccuracies, would cause such stories to be judged intentionally biased. It was also hypothesized that there would be no difference in perceived reporter-editor bias between a news story with a belief-unrelated inaccuracy and an accurate version of the same story.

An after-only laboratory experiment was conducted with 93 women elementary, secondary, and retired teachers. Equal numbers of subjects were randomly assigned to four groups. One group read a news story with a belief-discrepant inaccuracy; a second group, a belief-supportive inaccuracy; and a third group, a belief-unrelated inaccuracy. The fourth group read an accurate version of the story. The three types of inaccuracies affected the same sentence in the story. Otherwise, stories for all groups were identical.

Prior to reading the stories, subjects were given a brief transcript and told that it represented an "official record" of a Congressional subcommittee hearing. In that record, an unidentified educator expressed the opinion that teachers were not responsible for declining SAT scores. The testimony was taken from subjects when they had completed reading it. They were then given the news story, and told that

it represented an actual newspaper account of the educator's testimony. Subjects were also told that the reporter of the fictitious story was present at the subcommittee hearing and heard the testimony which they had already read in the "record."

The story with the belief-discrepant inaccuracy had the educator say that teachers were responsible for declining SAT scores. In the story with the belief-supportive inaccuracy, the educator said teachers "cannot be blamed" for the scores. The belief-unrelated inaccuracy consisted of innocuous synonyms for two of the educator's words.

A one-way analysis of variance coupled with Scheffé's multiple comparison test showed that in accordance with the hypothesis significantly more subjects in the belief-discrepant group perceived reporter bias in the news story than did those in the accurate group. There was also no perceived difference in reporter bias between those in the belief-unrelated and accurate groups, a finding the hypothesis also predicted. No significant difference in reporter bias was perceived by the belief-supportive group compared to the belief-discrepant group; but this was not predicted.

For perceived editor bias, only the predicted lack of significant difference between the belief-unrelated and accurate groups was supported by the statistical tests. The other aspects of the hypothesis were not supported. Explanations were offered for the findings, as well as suggestions for future research.

The results were offered as new evidence for mass media power, in contrast to the once prevalent view of limited media effects. It

was contended that editors and publishers should find the research of interest as a means of identifying, and correcting for, a heretofore unsuspected cause of reader bias perceptions.

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I. INTRODUCTION

Purpose and Significance of the Study

Inaccuracy has been called the "cardinal journalistic sin" (MacDougall, 1972, p. 107). No matter what other deficiencies a given news story may have, most journalists would agree that if it is inaccurate, it is not worth disseminating. There are two principal reasons for this professional concern with inaccuracy.

Journalists have traditionally maintained that inaccuracies are undesirable because they prompt readers to question the ability of reporters and others on the newspaper's staff to identify and correct errors before a story is printed. As a consequence, the inaccuracies "lower the newspaper's standing with its readers" (Westley, 1972, p. 20).

Such a consequence could, of course, be a public relations disaster for many newspapers, since it could result in a loss of circulation.¹ One assumes that a major reason for buying a newspaper is to obtain consistently reliable information.

But another reason for journalists' condemnations of inaccuracy is divorced from sales considerations. Beginning reporters and copy editors are taught from the outset that they have special responsibilities to the public, one of the most fundamental of which is telling the truth. They are taught that truth cannot be separated from accuracy;

¹In the absence of competition, the result of inaccuracies might not be so serious. But even though the newspaper might still be purchased, its "standing" in the public eye could suffer.

hence, the heavy emphasis on the latter in the classroom and practical training of journalists. Few reporting textbooks exist that do not emphasize the care needed to produce an accurate news story.

Even so, concern over inaccuracies need not reflect the altruism of the journalist's "mission" to tell the truth. Newspapers do not survive on charity. They are businesses, and anything that threatens circulation and/or advertising must be contended with at once. The possibility that inaccuracies might "lower the newspaper's standing with its readers" is therefore serious indeed.

One might think that such an undesirable consequence would have spurred at least some empirical investigations examining the effects of news story inaccuracies, if only to confirm conventional wisdom. That has not been the case. Aside from isolated experimental and survey research (Greenberg & Razinsky, 1966; Wilson & Howard, 1978), most studies of mass media accuracy have attempted to document only the variable incidence of different types of inaccuracies (see Section II).

Media practitioners and researchers may have concluded there is little reason to doubt that inaccuracies "lower the standing" of newspapers with their readers, and that consequently there is no need to pursue the subject further. After all, it is difficult to imagine how inaccuracies could enhance readers' estimations of newspapers. A recent investigation, however, suggests that all may not be known about the effects of inaccuracies.

Wilson and Howard (1978) reported that a portion of their surveyed sample believed newspaper inaccuracies were evidence of intentional

reporter and/or management bias. The possibility that newspaper readers would infer bias from inaccuracies is certainly not part of journalism's conventional wisdom, and is well worth investigating further. No respectable newspaper wants to be perceived as biased, for whatever reason.

This research hypothesizes that perception of bias can result from news story inaccuracies (however unintentional they may have been). It is further hypothesized that the type of inaccuracy is critical in determining the extent to which readers ascribe bias to the newspaper. The rationale behind these hypotheses is discussed in Section II.

Research on the relationship between inaccuracies and perceived reporting bias has practical value. If it can be established that certain types of inaccuracies abet perceptions of bias in readers' minds, newspapers would be provided added incentive to monitor copy more stringently for such inaccuracies.

Berry has noted that "when someone finds an error in a story on a topic he knows about then the papers are damned as 'never able to get anything straight'" (1967, p. 483).² If published inaccuracies also affect readers' perceptions of bias, their impact is more serious than Berry contends. It is one thing to charge that a newspaper "can't get anything straight," but more damaging to contend that it is biased.

²Berry and others apparently treat "error" and "inaccuracy" synonymously. For consistency, the term "inaccuracy" is used throughout this research, and because seemingly synonymous terms for accuracy and inaccuracy can have different nuances (see Section II).

The former implies incompetence, the latter deliberate intent to deceive.

Determining whether such a perception does or does not occur as a result of inaccuracies would provide a new dimension to mass media accuracy investigations. Previous studies have mainly sought to determine frequency and types of inaccuracies, or have isolated some of their causes. There has been no experimental work on the effects of news story inaccuracies, an omission this study will address, as explained in Section II.

Statement of Problem

The research question posed is: Do news story inaccuracies affect reader perceptions of reporter and/or editor bias? An hypothesis relevant to this question is developed from the theory discussion in Section II, and presented at the conclusion of that section.

II. LITERATURE REVIEW

The Meaning of News Story Accuracy

This research considers accuracy as it applies to newspaper stories.³ What does it mean to say that a news story is "accurate?"

A dictionary definition of accuracy coincides with that most journalists would consider the concept to mean: "fidelity to fact or truth attained by exercise of care." After all, they are taught that "telling the truth is the newspaper's primary obligation to the reader" (Westley, 1972, p. 71). And most basic reporting texts make clear that confirmation of news story accuracy requires careful checking of information provided by sources (MacDougall, 1972, pp. 108-112).

The concept of accuracy, as used here, may be considered to have two essential elements: comparison of an object with a standard which constitutes "fidelity to fact or truth," and care taken to achieve the fidelity. The opposite of accuracy, inaccuracy, also has the element of comparison (i.e., to judge whether inaccuracy is present in a news story, one must have something for comparison which constitutes "fact or truth") and occurs through the absence of care.

Similarly, one may determine whether something is "accurate" by undertaking a comparison with a standard stipulated as factual. If the object of the comparison is indeed accurate, then it exhibits fidelity to that which was stipulated as factual, and does so because care was exercised in the formation of the object. If fidelity is not

³But accuracy may also be investigated in the context of television news (Singletary & Lipsky, 1977), magazine stories (Borman, 1978), non-mass media messages (Greenberg & Razinsky, 1966), and intrapersonal estimates of what others think (Chaffee & McLeod, 1968, Ryan, 1978), to name several possibilities.

exhibited, then it is because care was not exercised, and the object of comparison is said to be "inaccurate." This assumes, of course, that the lack of fidelity was not intentional.

There are seemingly synonymous terms for inaccuracy. "Error," for example, is frequently interchanged with "inaccuracy" in the mass media accuracy literature. But if one accepts that accuracy contains the elements of comparison and care, then error need not mean the same thing as inaccuracy. Error can be discovered through comparison, but if an object is error-free it may be so merely by chance. The exercise of care may have had nothing to do with the object's being free of error. If it were accurate, however, care must have been present in the formation of the object to have made it so.

Other terms that might be equated with inaccuracy are troublesome as well. On the surface, "mistake" might seem synonymous with inaccuracy. A mistake can be discovered through comparison with something stipulated as free of mistakes, but, as with error, it may be mistake-free by chance and not through the exercise of any care. Another problem encountered in attempting to equate mistake and inaccuracy is that the former can carry the connotation of a lapse in judgment, or even the presence of bad judgment. Inaccuracy, however, means simply that care was not exercised. It need not mean that bad judgment was exercised.

Connotative problems also arise when one equates terms such as "correct," "precise," and "true" with accurate as defined in the dictionary and used in this study. "Correct" can carry normative connotations. An object may be correct because it conforms to a status quo. It may not be accurate at all, in the sense of conforming to something

stipulated as factual. And "precise" can carry a connotation of an abundance, even an excess, of care. A precise object may therefore be "more" than simply accurate.

A distinction may be made, additionally, between "true" and accurate. For example, an accurate news story may report an individual's words in conformity with an accepted standard of comparison. But if the words were taken out of context then the news story may not be true, in the sense of conveying the speaker's intent, even though it was accurate.

Nevertheless, in this research accuracy is defined (borrowing from the dictionary) as fidelity to stipulated fact or truth, attained by exercise of care.⁴ The other reviewed concepts are not here considered equivalent in meaning, and hence are not used.

News story accuracy still remains to be defined. It was mentioned earlier that most journalists would agree with the dictionary definition of accuracy. It is perhaps not surprising, therefore, that a widely used reporting textbook reflects the dictionary definition in its treatment of news story accuracy:

What accuracy means literally is that every element in a news story, every name and date and age and address, every definitive word or expression or sentence, is a precise and unequivocal statement of a verifiable certainty. (Charnley, 1975, p. 28)

If such a news story were truly a "precise and unequivocal statement of a verifiable certainty," it would indeed exhibit the fidelity to fact stated in the dictionary definition. The comparison element implied in the dictionary is also present in the Charnley

⁴Inaccuracy is therefore a deviation from fidelity to stipulated fact or truth. An accurate object exhibits such fidelity, an inaccurate object does not.

definition, since to prepare accurate news story copy a reporter would have to have some standard of comparison, if only notes or memory, by which he or she could judge the copy to be accurate. And certainly the checking of "every element in a news story" for accuracy could entail exercising considerable care.

There seems little question that Charnley's definition of news story accuracy is in agreement with how most journalists would understand the concept. Because this research focuses on news story inaccuracies, and because its results are expected to be of as much interest to media practitioners as to other researchers, a definition of the concept was adopted that would be meaningful to most journalists: news story accuracy is defined for this research as agreement between a news story account of an individual's words, and a record of those words that constitutes a verifiable certainty.⁵ This definition, of course, owes much to Charnley.

It has little in common, however, with viewing accuracy as "understanding" something, in the sense of a news story successfully communicating the meaning of a quoted individual's words to the reader (Heffner, 1971, 1973; Mehrabian & Reed, 1968; Chaffee & McLeod, 1968). Rather, it simply implies a judgment of whether what someone said in a news story is really what was said. Whether newspaper readers

⁵While this research restricts news story accuracy to agreement between reported words and a record, one could expand the definition to include non-verbal characteristics of an event. Such a more generalized definition of news story accuracy might treat the concept as agreement between a news story account of an event and a record of that event that constitutes a verifiable certainty. The general definition thus takes much more into account than determining whether words in a story match those in a record. It calls for verifying all events reported in the story, including silence, eyebrow-raising, catcalls and flag waving.

"understood" what an individual in a story meant is another matter. For a discussion of alternative ways of conceptualizing accuracy to that employed here, Heffner (1973) is recommended.

The antithesis of news story accuracy, as defined in this research, is news story inaccuracy. It is simply the absence of agreement between a news story account of an individual's words, and a record of those words that constitutes a verifiable certainty.

While the definitions of accuracy and inaccuracy used in this research should be meaningful to most practitioners, they are also the same as those used by other researchers of news story accuracy. Any differences are purely nominal. Blankenburg, for example, defined accuracy as "truthful reproduction of an event or activity of public interest. An inaccuracy is a flaw in the reproduction" (1970, p. 376), while Lawrence and Grey treated inaccuracy as "the deviation of a reported observation of an event from the 'reality' or the 'truth' of the event" (1969, p. 753).

Blankenburg's restriction of accuracy to "an event or activity of public interest" is not at odds with the definition of news story accuracy used in this study, since the latter definition assumes that any such story involves such an event or activity.⁶ Otherwise, it would not be printed in a newspaper.

Where the definition used here differs from those of Blankenburg and Lawrence and Grey is in its specification of a statement constituting

⁶When Blankenburg, and Lawrence and Grey speak of accuracy, they are really referring to news story accuracy. The latter is a specific application of the former, but includes, of course, the comparison and care elements of accuracy. For convenience, accuracy will hereafter be taken to mean news story accuracy in this study.

a verifiable certainty. In other words, the definition of accuracy used in this research specifies a comparison between the news story account and something else; the comparison is essential to determine whether the account is in fact accurate.

The definitions of Blankenburg and Lawrence and Grey imply, however, that a comparison is involved. When Blankenburg defines an accurate news story as a "truthful reproduction," it should be obvious that there must be some standard of comparison by which the story can be shown to be accurate. Similarly, Lawrence and Grey's definition of inaccuracy as a deviation from reality means that someone, or something, will have to be used as a standard for deciding whether the news story does deviate. The story will have to be compared with something else.⁷

So the definition of accuracy adopted for this research contains the elements of definitions used by other researchers of news story accuracy, and is very much in the spirit of the definition given by Charnley (which is how most journalists have traditionally understood the concept). For these reasons, and because the focus is on messages (i.e., news stories), the definition here analyzed is adopted instead of others (Heffner, 1973).

Measuring News Story Accuracy

The definition of accuracy used for this research, as well as elsewhere, implies that a standard of comparison is needed to measure

⁷Heffner (1973) has noted that all definitions of accuracy involve the comparison of one thing with another. This is so because nothing can be said to be accurate unless there is a standard, however rudimentary, for accuracy. Accuracy does not exist independently of some stipulation of a "verifiable certainty."

the degree of accuracy (or inaccuracy) in a news story. What standard could, or should, be used?

The most frequently employed standards in investigations of news story accuracy have been sources named in the stories. The common technique is to clip out news stories, mail them to sources mentioned in the stories, and ask (via an accompanying questionnaire) whether the stories are accurate. This method was originally devised by Charnley (1936), and has inspired research by a number of others (Brown, 1965; Berry, 1967; Lawrence & Grey, 1969; Blankenburg, 1970; Cote, 1970; Ryan & Owen, 1977; Marshall, 1977; and Singletary & Lipsky, 1977).

It is not an ideal method for measuring accuracy, as Kocher and Shaw (1979, p. 2) have noted:

His [Charnley's] approach equates accuracy with acceptance by the source of the printed account of the source's utterances. This does not mean that the printed account is actually accurate, in the sense of conformance to some accepted standard of comparison; only that the source perceives the account as accurate.

Such an approach carries built-in deficiencies, the authors warned:

In many accuracy studies [using the Charnley method], the lag time between a story appearing in the newspaper and its analysis by sources named in the story varied from a few days to several weeks. It is certainly possible, even likely, that sources had forgotten the details of what they said by the time it appeared in the newspaper, making subsequent recollections faulty. Issue salience would also affect subject recollection: people are more likely to recall things they say which matter to them. (pp. 2-3)

Given these deficiencies, one might ask why the Charnley method of measuring news story accuracy has proven so popular.

One reason is its simplicity. If one accepts that a source can designate whether or not a printed account is accurate, thereby establishing one method of stipulating accuracy, then it is not a

difficult next step to operationalize that definition. All one has to do is provide the source with a printed account of his or her utterances, and he or she judges whether it is accurate.

Another reason, applicable to newspapers sponsoring accuracy studies of their reporting, has to do with public relations. A newspaper which reports results of an accuracy investigation appears concerned with quality reporting. And if the investigation "proves" the reporting is accurate, so much the better (especially if the results are published).⁸ These appear to be the major reasons for the continued popularity of the Charnley method.⁹

Sometimes, however, researchers using that method do not always ask the news story sources whether they have been reported accurately. Jester (1971), for example, asked whether "sources believed [their] statements as reported would be read with their intended meaning by most readers" (p. iii). Such an approach is similar to asking whether a message is understood, as was mentioned earlier. This, however, was not the objective of Charnley's original study (1936), nor has it been of many that have followed. Investigating whether messages are

⁸ Even if the newspaper does not find that its reporting was accurate, or chooses not to publish results, something is still gained. The newspaper has left the impression with its readers who are newsmakers that it is concerned with the quality of its reporting, that it cares about what it prints. For an account of an in-house newspaper accuracy investigation, see Taylor (1975).

⁹ After identifying inaccuracies by this technique, some researchers have attempted to determine their causes. Berry (1967), for example, found that stories sources perceived as most accurate were based on personal interviews and public relations materials. Ryan and Owen (1977) have summarized other reported causes of inaccuracies reported in the literature.

accurately understood should be viewed as but one of several objectives of accuracy research.

The purpose of this research, for example, is to determine the effects of inaccuracies on perceptions of bias. Charnley's objective, and that of many others, has been to determine the frequency and types of inaccuracies.

Whatever the objective, it has been pointed out that using the source as a determinant of accuracy (however defined) entails interpretative difficulties. One solution to the problem of source determination of news story accuracy is the "record comparison" method used by Kocher and Shaw (1979). This involves comparing what is said in newspaper accounts with an official record that has been stipulated in advance as a "verifiable certainty."¹⁰ An example would be the verbatim testimony record of a legal proceeding, which could be compared with newspaper stories describing that proceeding.

Kocher and Shaw considered the record comparison method a major improvement over the traditional Charnley approach, since "an official record's 'memory' cannot be faulted" (p. 5). In addition,

With the record comparison method, it is also unnecessary to weigh the effect of issue salience on a respondent's [i.e., the news story source's] assessment of accuracy, since the official record is impartial. All verbal aspects of the event are recorded, the trivial and the important, the dull and the interesting. The record remains intact for any researcher's perusal. (p. 5)

¹⁰Lawrence and Grey (1969, p. 757) earlier suggested use of such a method. Becker (1971) used the record comparison approach to check the news reporting accuracy of a series of military hearings, and found a generally high level of accuracy in the stories examined.

Because of these advantages, the record comparison method is used in this research to produce an accuracy standard (see Section III).

Inaccuracy Categories

In the process of determining the frequency of inaccuracy in news stories, Charnley-inspired investigators have devised inaccuracy categories. Charnley (1936) suggested that three types of inaccuracies could be found in newspaper stories: (1) "mechanical or typographical" errors; (2) "writer's errors" (mistakes in names, titles, ages, addresses and the like); and (3) "errors in meaning" (p. 396). By the latter, he asked readers to note on their returned questionnaires whether

the story errs in implication--in the impression it gives the reader, in emphasizing any point unduly or in failing to give any points due emphasis, in omitting information or details necessary to give the reader a fair understanding of its subject. (p. 396)

Charnley's categorization of newspaper inaccuracies was subsequently adopted in modified form by Berry (1967). His examination of the types of inaccuracies found by sources persuaded him that two broad categories could usefully account for all news story inaccuracies.

Berry's first category, objective inaccuracies, includes mistakes in names, titles, locations, dates, spelling, and typographical mistakes. The second grouping, subjective inaccuracies, encompasses inaccurate headlines, overemphasis, underemphasis, and omitted material (p. 487).

One could argue that typologies like Charnley's and Berry's are most useful when they assist in formulation of hypotheses (or

facilitate their testing) for later research. Charnley's typology, however, seems to have been developed chiefly as a convenient means for his questionnaire respondents to list inaccuracies they found. Given that his study was a pioneering effort, this was perhaps understandable. He was merely attempting to determine whether his method could be used to discern the extent of news story inaccuracies.

Berry made little modification of Charnley's typology, since apparently he wanted only "to compare newspaper accuracy at a different time and place with Charnley's and Brown's [1965] findings" (p. 483). Using a substantially different typology would not have facilitated comparison of inaccuracy types among the three studies.¹¹ As it stands, Berry's typology basically collapses Charnley's "mechanical or typographical" and "writer's" errors into one category (objective inaccuracies), and calls "errors in meaning" subjective inaccuracies.

Kocher and Shaw (1979) argued that Berry's dichotomy "is not mutually exclusive (misquotations may involve overemphasis, underemphasis or omission) and succeeds in merely labeling the inaccuracies" (p. 5). "A more useful classification," the authors contended, "might suggest ramifications of the inaccuracies" (p. 6). Such a typology could help predict what might happen as a consequence of a particular type of inaccuracy. For example, some inaccuracies might encourage reader perceptions of bias, as the present research hypothesizes. Prediction is, after all, a major objective of science. It is hard to

¹¹Brown's inaccuracy categories were quite similar to Charnley's, although he did not group them under Charnley's three headings. For example, Brown enumerated inaccuracies in names, dates, and times but he did not place them in a "writer's errors" heading as did Charnley.

imagine what either Charnley's or Berry's typology could predict.

Others have criticized Berry's typology, but for different reasons. Ryan and Owen (1977) noted that problems arise when sources and reporters (or editors) disagree as to how something should be emphasized or interpreted:

To label these disagreements as "errors" may, in some cases, be misleading in that a source is not necessarily right. In fact, journalists and sources often are working toward different ends. As one respondent [to their survey] said: "As a source, I obviously would have liked to have seen more space given to a pet project of mine, and much more prominent location and headline." (p. 32)

Despite these criticisms, it should not be argued that Berry's typology (and Charnley's, to which it is so similar) has no utility. His classification of inaccuracies has led some researchers to investigate, for example, the cause of subjective inaccuracies. Lawrence and Grey (1969) concluded that

lack of contact between the newsman and a news source increases the chance that serious subjective errors will be perceived as occurring or will actually occur.
(p. 756)

Surely such a finding would be of interest to media practitioners.

Kocher and Shaw suggested an inaccuracy classification that is different from Berry's. Drawing upon relevant socio-psychological theory (see following section), they developed an inaccuracy typology that could be useful in predicting certain effects of inaccuracies on newspaper readers. They suggested classifying inaccuracies according to whether they are perceived by readers as (1) encouraging a negative view of a topic of reader interest; (2) encouraging a positive view; or (3) "giving little or no impetus to change one's view" (1979, p. 6).

But this typology, like Berry's, is not without its own flaws. Kocher and Shaw did not state precisely what was meant by a "positive view" or a "negative view," while their third category is also not clearly defined. In an effort to remedy these difficiencies for the present research, their categories have been renamed and given more exact definitions (p. 26).

Despite the interpretation problem, Kocher and Shaw's typology does imply that inaccuracies have effects, which is not implicit in Charnley's and Berry's classifications. It should therefore be useful in an inaccuracy investigation, since one assumes that because inaccuracies have effects they should be of interest to mass media researchers.

Perceived Bias Through Inaccuracy:

A Theoretical Context

Can newspaper inaccuracies lead to reader perceptions of reporter and/or editor bias, as Kocher and Shaw have suggested? Charnley (1975) has mentioned that a reader who identifies an inaccuracy in a news story "is likely to draw an inference that is unjustifiably broad rather than to limit his complaint to the specifics he is sure of" (p. 29).

Westley (1972) also voiced concern over the attention inaccuracies attract:

Editors know that the reputation of a newspaper hinges on getting the facts right. They know that little errors and big errors alike can lower the newspaper's standing with its readers. (p. 20)

There is little question that working journalists are concerned over possible adverse effects of inaccuracies, a concern grounded in their newspaper experiences. Probably every editor has had to contend with an irate caller claiming that the newspaper "deliberately messed up" a story.

There is some experimental and survey evidence suggesting that message inaccuracies are likely to encourage perceptions of bias. Greenberg and Razinsky (1966) gave four groups of student-subjects a 500-word persuasive essay, a different version for each group. One group received a version with no "errors." The other versions had (1) 12 errors (5 spelling errors, 4 punctuation, and 3 grammar errors); (2) 24 errors (10, 8 and 6 of the types of errors in the preceding version); and (3) 48 errors (20, 16, and 12 errors). The researchers examined "the effects of errors in general and not . . . the relative effects of spelling errors, grammatical mistakes, etc." (p. 488).

A principal finding of their research was that "When the message contained a substantial number of errors [about one error per 10 words], the source was perceived as both less competent and less trustworthy" (p. 490). The authors' restrictions on the types of inaccuracies examined, however, do not permit generalizations of their findings to substantive errors in mass media contexts.

Recent survey results tend to support Kocher and Shaw's hypothesized bias link to inaccuracies. Wilson and Howard (1978) obtained 232 completed questionnaires from personal interviews on public perceptions of mass media accuracy. A surprising finding was that

Generally, respondents were inclined to blame reporters' bias [emphasis added], carelessness, or lack of education

or preparation for errors found in [newspaper] stories to which they had contributed, or which were on topics of which they had first-hand knowledge or in which they had a personal interest. (pp. 75-76)

Another finding is of interest for the present research:

Purposive error in the news arising from bias within the news organization was considered to be important or very important as a cause of error by 64.6% of respondents, with 54.7% blaming reporters or editors and 30.9% blaming senior management or the owner of the medium. (p. 76)¹²

So it appears there is some evidence to support the familiar contention of working journalists that newspaper inaccuracies adversely affect readers' opinions of the publication. It is still insufficient evidence. Greenberg and Razinsky did not consider the question of bias perception, while Wilson and Howard's survey findings do not demonstrate a cause and effect relationship between inaccuracies and bias perception. An experiment designed to test such a relationship would therefore be in order.

From the above findings, however, the question of whether newspaper inaccuracies can lead to reader perceptions of reporter and/or editor bias may be answered with a tentative "yes." But there is a more interesting question that needs to be answered: Why should newspaper inaccuracies produce that effect?

Kocher and Shaw provided a rationale to answer that question by positing two preconditions which they suggest may be necessary for their hypothesized bias perceptions to be most pronounced. First, it is obvious that readers have to notice the substantive inaccuracies;

¹²The sample on which the percentages are based cannot be reliably determined from the article, either as to identity or size.

this they cannot do unless they have some standard of comparison by which errors may be judged as such (e.g., they were an eyewitness to events described in the story). Second, readers must have a "high interest" in the subject of the inaccuracies (p. 6).

The second point is worth further discussion. Most people consciously assign priorities to the various places, persons, concepts, events, and ideas that are confronted each day. Some are more important, more salient to use Carter's term (1965), than others.

Salience has been defined as the "psychological closeness of an object to a person" (Chaffee, 1967, p. 439). Chaffee noted that "the more salient the object, the more highly the person will value it, and the less likely he is to change his evaluation [of it]" (p. 439).¹³ Consider what might happen when a newspaper reader discovers an inaccuracy which, to modify Kocher and Shaw's typology, would make an opinion expressed in the statement it affects not to coincide with the reader's opinion (i.e., if the statement had no inaccuracy, the opinions would coincide).

Since the inaccuracy has been noticed, and presuming that it affects a salient topic, it does not seem unreasonable to assume that the inaccuracy would compel the reader to evaluate the way it affects

¹³Charnley's (1975) use of the news reporting concept of proximity is quite similar to salience: "Being close to a news event gives it added interest for the consumer, and often added importance. A man (sic) can relate more readily to an auto smashup, a union picket line, or a campaign speech if he can picture its scene, place it among people he knows, or imagine himself as spectator or participant" (p. 54).

the issue. To use Tannenbaum's terminology, the inaccuracy becomes an index, a

stimulus element or a stimulus complex that may serve to predispose [emphasis added] a particular interpretation or meaning of the total stimulus pattern. (1955, p. 293)

That is to say, the inaccuracy predisposes the reader to arrive at some conclusion as to its cause. If the reader were objective about the matter, and especially if the newsgathering process was properly understood, he or she would more likely attribute the inaccuracy to a composition mistake or perhaps a reporter's superficial knowledge of the subject, than to deliberate slanting.

But such a simplistic scenario is severely complicated by other considerations. Newspapers, as a mass medium, are widely believed to affect public opinion. It does not matter that dozens of scholarly articles have contested views of such media omnipotence. The public thinks otherwise (Shaw, 1974). Even though the last word on media influence has by no means been written (Noelle-Neumann, 1973; Shaw & McCombs, 1977), most people still credit the media with broad powers to affect public opinion.

The press' alleged power may begin to explain why a reader who notices a news story inaccuracy affecting a salient topic might choose not to consider an innocent explanation for it. It would not be inconsistent with the public's view of media influence for a reader to conclude that the inaccuracy constituted a deliberate influence attempt. To further hypothesize, such a conclusion might be all the more invited when the newspaper's editorial stance on the salient topic is well known, or when the inaccuracy does not coincide with the reader's position on the topic.

That an evasion of likely alternative explanations for inaccuracy could take place is not surprising. People do evade the implications of incongruent information, as was discovered several decades ago in communication research. In their study of prejudice in 1947, Cooper and Jahoda asked:

Why has evasion become so general? The answer lies partly in the difficulties the individual must face to achieve uniformity in the various areas of his everyday experience. To face the contradictions and try to resolve them would undoubtedly set up disturbing tensions which would in turn involve serious difficulties for most individuals. (p. 24)

Instead of assuming that an inaccuracy was unintentional, a product of the conditions under which news is gathered, the reader may be more apt to decide it was intentional. To think otherwise would contradict the popular suspicion that the media, and in particular newspapers (with their suspected editorial influence), really do try to persuade the public on various issues--even in their news reports. Borrowing from Cooper and Jahoda, it might be easier to adopt the bias conclusion than for the reader to "face the contradictions."

Kirk and Talbot (1966, p. 311) were in theoretical territory similar to Cooper and Jahoda when they stated

whether a message is appraised as distorted or undistorted will depend upon the purposes to which we relate it. . . . What is automatically judged "undistorted" is what automatically serves our purposes.

The importance of issue salience to the reader must be emphasized. High salience issues are likely to heighten any predisposition to assume that inaccuracies were intentional, because of the newspaper reader's greater ego-involvement with the issue.

This is not to say that a person who is neutral on a given issue would not tend to perceive bias from news story inaccuracies, or assume that others might. For example, a reader who was neutral on the issue of nuclear energy, but knew it was salient for a particular group of the newspaper's readers, and who knew that those readers would likely share the same opinions on the issue, might conclude that a particular inaccuracy was unfavorable to the group's known opinion. If that same reader also knew that the newspaper was editorially opposed to nuclear energy, he or she might think the inaccuracy was intentional on the part of reporters and/or editors.

Such a reader might be considered as processing information in an evaluative mode (Carter, 1965). He or she would be examining "pertinence values [i.e., the relationship between two objects, the inaccuracy and the group's opinion on the nuclear energy issue] to make a decision" (pp. 211-212). But the members of the group, who noticed the inaccuracies, would likely be in a goal-seeking mode (Carter, 1965). Such persons are examining information in search of "a referent as a locator" and are "particularly susceptible to a phenomenon of selective perception" (p. 212). So salience aspects of news stories affected by inaccuracies would seem to be a useful area for future accuracy investigations. For this research, an attempt was made to hold issue salience constant, in order to discern the hypothesized effect.

The foregoing provides an accounting of how detected inaccuracies might lead to perceptions of bias. But there is more theoretical support for such an hypothesis.

Hovland, Harvey, and Sherif (1957) were interested in the reactions of subjects to communications perceived as advocating varying degrees of positions on controversial issues. Their work, falling under the rubric of assimilation-contrast theory, suggested that

the relative distance between S's own attitude and communication along with S's latitudes of acceptance and rejection for various stands on the issue may provide a basis for predicting reactions to communication and susceptibility to change [one's views]. (p. 251)

In summarizing their work, Hovland (1959) stated that the perceived position of the communicator on an issue "greatly influences the evaluation of the fairness of the communication," and that one way of dealing with a belief-discrepant communication was for the message recipient to "discredit the communicator, considering him unfair and biased" (pp. 11-12). Kocher and Shaw considered these findings pertinent to investigations on the effects of inaccuracies:

Thus, when an inaccuracy contradicts salient information about some issue, the recipient of the inaccurate message may react by placing the communicator's position on the issue further from his own than the situation would warrant; and, in conformance to the findings of Hovland, Harvey and Sherif, the communicator might be judged as biased. (p. 15)

The hypothetical newspaper reader used to develop the theoretical argument thus far has: (a) noticed an inaccuracy on (b) an issue salient to him and (c) is aware that he or she does not agree with an opinion reported in a news story statement, because the noticed inaccuracy changes the meaning of the statement. The reader knows that if the statement were accurate, he or she would agree with the

opinion.¹⁴ What might happen when the inaccuracy caused the opinion in the statement it affected to thus coincide with and reinforce the reader's opinion?

An answer is available, again, from research in assimilation-contrast theory. Hovland (1959) noted that when subjects were presented with messages advocating positions that were not belief-discrepant, the experimental subjects considered the communication "fair and impartial" (p. 11). Thus, when an opinion reported in a news story statement contains an inaccuracy, but the inaccuracy reinforces and coincides with the reader's opinion, he or she is encouraged to think the newspaper is "doing a good job."

A third possibility for reader response to inaccuracies may be derived from Kocher and Shaw's error categorization. They referred to inaccuracies which do not affect a reader's saliences, in which case the result of noticing the error would be "no change in evaluation of the communicator" (p. 15). Greenberg and Razinsky found otherwise (1966), it should be recalled, but they were not considering substantive inaccuracies.

Hypothesis

The preceding discussion suggests the hypothesis this research will test: belief-discrepant inaccuracies detected in news stories,

¹⁴This presupposes, of course, that the reader has some standard of comparison by which he or she "knows" the statement contained an inaccuracy. Notice also that it is not contended that the inaccuracy was intentional on the part of reporters and/or editors, though the reader may think it was.

unlike belief-supportive or belief-unrelated inaccuracies, cause such stories to be judged intentionally biased.

Specifically, when a belief-discrepant inaccuracy in a news story affects a salient topic (a condition that may be necessary in the real world for the hypothesized effect to occur), readers will more likely tend to attribute bias to reporters and/or editors than if the inaccuracy were belief-supportive. If the inaccuracy is belief-unrelated, there will be no significant difference in perceived bias between a news story with such an inaccuracy and an accurate version of the same story.

Concept Definitions for This Research

1. Perceived bias: a judgement by the reader that a newspaper reporter and/or editor has deliberately attempted to influence reader opinion on a given news story issue.

2. Inaccuracy: any lack of agreement between a news story account of an individual's words and an official record constituting a verbatim report of those words.

3. Belief-discrepant inaccuracy: a news story inaccuracy, the presence of which seems to make a newsmaker's reported opinion not to coincide with the reader's opinion.

4. Belief-supportive inaccuracy: a news story inaccuracy, the presence of which seems to make a newsmaker's reported opinion coincide with and reinforce the reader's opinion.

5. Belief-unrelated inaccuracy: a news story inaccuracy that has no direct relevance to a reader's opinion on a salient topic.

6. Saliency: the psychological closeness to the reader of a topic reported in a news story.

III. METHODOLOGY

The research design selected to test the hypothesis was an after-only laboratory experiment, with three treatment groups and one control group. Experimental subjects were 93 women teachers from elementary and secondary schools in the Knoxville metropolitan area. Twenty-one were retired. The teachers taught, or had taught, a variety of subjects and had varying years of teaching experience. The experiment was conducted at a regular evening dinner meeting of the subjects' Delta Kappa Gamma education society, a professional organization.

A female confederate gave a brief oral description of the experiment, explaining that its purpose was "to find out how people judge information presented in newspapers." This vaguely proffered rationale served to disguise the study's actual objective.

Following the confederate's introductory remarks, subjects were given a page containing directions for beginning the experiment, and a fragment from what was announced as an "official" (but actually fictitious) record (Appendix B). The directions stated that the official record represented a portion of an educator's testimony before a Congressional subcommittee on educational testing. The testimony was said to represent the educator's responses to questions concerning reasons for declining SAT (Scholastic Aptitude Test) scores, and contained his denial that teachers were primarily to blame for the lower

scores. The directions also informed subjects that the official record was "an accurate account of what was said" at the subcommittee hearing.

Subjects were asked to raise their hands as a signal that they had completed reading the directions and the testimony. The page containing those materials was then retrieved by the confederate and two assistants, in exchange for two more pages containing directions and materials for the remainder of the experiment.¹⁵

Subjects were asked in those directions to give their opinions (via semantic differential scales) on (1) the desirability of incorporating portions of verbatim testimony in news stories; (2) the perceived expertise of the educator in the testimony; (3) the importance of the SAT score issue to both themselves and the teaching profession; and (4) their opinion of whether teachers were responsible for declining SAT scores. This last item was asked in order to determine the degree to which subjects held a similar opinion on the SAT issue.

The scales for the first two items were presented to prevent undue focusing on the third and fourth items (issue salience and similarity of opinion), since information on the latter was what was desired. It was also considered they might be helpful in a possible secondary data analysis. It was intended that the first two items would distract subjects from the variables of interest in the experiment.

The next item in the materials was a fictitious news story fragment (presented as an actually published item) reporting the educator's

¹⁵ These were printed on both sides, for a total of four pages, and are reproduced as Appendix C.

testimony before the subcommittee. Subjects were told in directions accompanying the story that the newspaper reporter was at the subcommittee hearing and heard the testimony they had read.

There were four versions of the news story fragment. In one version, one of the educator's direct quotations incorporated in the story was changed so that it contained a belief-discrepant inaccuracy. In another version, that quotation had a belief-supportive inaccuracy, and in a third version a belief-unrelated inaccuracy. The fourth version accurately reported the testimony. Otherwise, all versions were identical. Subjects had been randomly assigned to four groups, representing the four versions. That the inaccuracies were likely to be perceived as stipulated for the three groups, that is, as belief-discrepant, belief-supportive, and belief-unrelated, was checked indirectly (see Section IV).¹⁶ The four story versions are given in Appendix D.

Finally, all subjects completed another questionnaire designed to measure opinions on several aspects of the news story. Subjects were asked their opinion of the newspaper reporter's and editors' trustworthiness, competence, lack of bias, and attention to detail.

¹⁶To test the hypothesis of the experiment, it was assumed that there would be a consensus among subjects regarding teachers' responsibility for declining SAT scores. Otherwise, the first two types of inaccuracies would be belief-discrepant and belief-supportive only for those subjects who gave an opinion that teachers were not responsible for declining scores. An opinion measure (question [5], p. 71, Appendix C) was included to determine whether the assumption was supported by the data. By its definition (p. 26) the belief-unrelated inaccuracy would be independent of subjects' opinions on the role of teachers concerning the score issue.

In addition, subjects were asked their perceptions of the degree of bias and accuracy present in the story. For purposes of testing the hypothesis, only the perceived bias of reporters and editors was of interest in the experiment. The other variables served to disguise the purpose of the experiment, and were also included for possible secondary analysis of the data.

A series of multiple choice questions (preference for news stories reprinting testimony in Q & A format, frequency of newspaper reading, number of letters written to editors, number of years as a teacher, subjects taught, noting of inaccuracies in news stories, perceived editorial position of the newspaper that published the experimental treatment story, and age) was asked for possible secondary analysis as well.

All of the questions asked the subjects are contained in Appendix C. The experiment lasted 30 minutes.

Pre-tests

Three separate pre-tests were conducted to determine useful changes in the experimental materials. The first pre-test was conducted during a regular classroom session of an introductory broadcasting course at The University of Tennessee, and involved 47 students. The second pre-test, conducted by a cohort, used 57 master's and doctoral students in the English graduate program at Purdue University. The experimental materials were placed in the students' mailboxes, and returned to the cohort upon completion (response rate was approximately 50%). Results of this pre-test, because of the subjects used, were

particularly helpful in improving wording of the materials. The survey-like manner in which subjects responded precluded any causal analysis of the data.

A third pre-test functioned as a trial run of the actual experiment and involved 75 students during a regular class session of an introductory communications course at The University of Tennessee. Materials presented to this group incorporated changes suggested by the other pre-tests.

Under ideal conditions, teachers similar to those taking part in the experiment should have been used in the pre-tests. This was not possible because of the risk that pre-test subjects might also have been members of the educational society selected for the actual experiment. Moreover, there was a possible source of contamination from area pre-test teachers who might have discussed their participation in the pre-test with other teachers who would later be in the actual experiment. There was insufficient time to conveniently and inexpensively arrange pre-tests with teachers in other geographic areas.

Methodology Rationale

Research Design Choice

It is generally acknowledged that experiments should be conducted, when feasible, under naturalistic conditions to improve external validity. Furthermore, most researchers would prefer that subjects not be made aware they are participating in an experiment, to minimize the Hawthorne effect.

These design considerations could not be incorporated in this research because of conditions beyond the researcher's control. The University of Tennessee requires that in any experiment involving human subjects, participants must be informed in advance by the researcher that their cooperation is being sought for research purposes. In addition, they must sign an Informed Consent Statement (Appendix A).

The university's requirements effectively precluded a controlled field experiment, the preferred design for much social research. An after-only laboratory experiment was chosen as the next-best alternative for this study.

Such a design does not avoid the Hawthorne effect, but does minimize testing effects by not incorporating measurements prior to administration of treatments. It was believed that because subjects were already so highly sensitized to their participation in the experiment (through the required disclosure) effort should be made to minimize testing effects. Subjects did respond to two questionnaires, but those instruments elicited different information.

Subjects were presented with the official record first, and then the supposedly real news story, to approximate what would likely occur in real life.

It seems realistic to assume that inaccuracies are noticed on the basis of prior knowledge received through some standard of comparison for "truth." That standard of comparison could take several forms. For example, the newspaper reader might have been an eyewitness to the event described in the news story, in which case he or she knows

what happened (or believes so). Or, an individual might have extensive knowledge of the issue, and thus be inclined to notice a salient inaccuracy in a report of it. Yet another possibility would be that a trial lawyer who has read an official record while preparing for a case, and then reads a news story purporting to describe the events documented in the record.

An "official record" was used as the standard of comparison in this research for a practical reason: it was easy to incorporate in an experimental design. Other standards could have been used, but with greater difficulty.

But another consideration really makes irrelevant the choice of a standard of comparison. Research to test the hypothesis required simply that subjects have a standard of comparison for noticing the news story inaccuracies. The focus of the experiment was on the effects of inaccuracies, not on the standard of comparison employed by readers. It may well be that readers notice inaccuracies more readily when one standard is used than another, but that is a subject for future research.

Variable Selection

The dependent variable (perceived newspaper reporter and/or editor bias) and independent variable (type of news story error) were chosen to test the theoretical propositions of Kocher and Shaw (1979) under controlled conditions.¹⁷

¹⁷ Perceived reporter and/or editor bias was examined in Wilson and Howard's (1978) survey; hence the inclusion of both in this research. The authors also looked at perceived publisher bias, but this variable was not included in the present study to avoid overly alerting experimental subjects to the bias-focus of this investigation.

There are unquestionably other variables that could affect the hypothesized bias-link. For example, readers who are aware that the newspaper, through its editorials, held belief-discrepant views on a salient issue might be more likely to attribute bias from inaccuracies than readers unaware of the editorial position.

An experiment, however, seeks to show under what highly specific conditions A will lead to B. It can manipulate only a few potential factors that might account for changes in a selected dependent variable.

Treatment Group Size and Number

A very practical consideration limiting the number of treatments in the present research was the size of the group available for the experiment. As more treatments are added in an experiment, the randomized sub-group sizes must of necessity decrease in number unless the overall group is enlarged.

In this research, the number of subjects tested in each of the four treatment conditions was dictated by the size of the experimental group. Incorporating more than four treatment conditions (i.e., adding more variables to be controlled experimentally) would have severely restricted the reliability of the statistical tests used, or made their use unfeasible. In the actual experiment, there were 22 subjects each in the belief-discrepant and belief-supportive groups, 24 in the belief-unrelated group, and 25 in the group receiving the accurate news story version.

Subjects in the Experiment

Kocher and Shaw's theoretical work stipulated a salient issue in order for the hypothesized bias effect to occur. After a review of potential subjects for the experiment, teachers were selected because of the presence of an issue which should have been salient for them; i.e., the SAT scores. This was confirmed by responses to question three, p. 71, Appendix C.

Of course, the availability of the particular group of teachers used in the experiment was added incentive to test educators. Future research could usefully examine how different types of salient issues (e.g., political, economic, religious) affect perceived reporting bias among different groups (e.g., white collar workers, students, the elderly, rural residents).

News Story Length and Inaccuracy Placement

The news story in the treatments was limited to slightly more than four-column inches, so that (1) treatment inaccuracies would not be unduly buried in the copy; (2) subjects' patience would not be taxed; and (3) time needed to complete the experiment would not exceed the 30 minutes permitted by those whose permission was necessary to undertake the experiment. Regarding the first point, it is admitted that inaccuracies are often buried in actual news stories. Their location represents yet another treatment variable that could be the focus of a future experiment.

Inaccuracy placement in this experiment was kept constant, near the end of the news story. It was thought that such placement would increase the chances of the inaccuracy being noticed, since subjects

might be more likely to spot and recall an inaccuracy near the end of material they read (i.e., a recency effect).¹⁸

Scale Choice

Semantic differential scales are often used in social research to measure opinions. The semantic differential was originally employed in conjunction with factor analysis to locate various concepts within an hypothesized semantic space, with "a finite number of independent dimensions serving to differentiate the positions of concepts within that space" (Darnell, 1970, p. 182). Other studies have continued to use the semantic differential for similar purposes (Berlo et al., 1969).

Many studies, however, employ scales with bipolar adjectives placed at ends of a seven-step continuum, without any intent of trying to determine dimensions of a concept. Such a scale is simply a means of allowing respondents to show where their opinions lie between two extremes (e.g., Tans & Chaffee, 1966).

Since this research called for experimental subjects' evaluations of sources (the reporter and/or editor) and a medium (newspaper story), scale adjectives were drawn from research which sought similar

¹⁸ Primacy-recency is usually taken to refer to opposing sides in an argument. If we consider the educator's comment containing the inaccuracy an "argument," then Karlins and Abelson (1970, p. 30) offer support for placing the treatment manipulation at the end of the story: "Arguments presented at the beginning or at the end of a communication will be remembered better than arguments presented in the middle." The end was chosen, arbitrarily, for this research.

evaluations (Berlo et al., 1969; Shaw, 1976).¹⁹ Only face validity, however, is claimed for their use in the present study.

¹⁹An exception is the NOT RESPONSIBLE-RESPONSIBLE scale (Appendix C), which was devised specifically for this study.

IV. RESULTS

The hypothesis was tested using analysis of variance. Findings were considered significant at the .05 level. The results of the statistical tests will be presented first, followed by an interpretation of the results taking into account the absence of a consensus among subjects on the SAT issue (it had been assumed there would be a consensus).

The hypothesis (p. 25) concerns perceived reporter and editor bias. Reporter bias will be examined first. A one-way analysis of variance was conducted using the Statistical Package for the Social Sciences (SPSS) subprogram ONEWAY (Nie et al., 1975), with perceived reporter bias as the dependent variable (the third scale in question [1] p. 72, Appendix C) and the story version as the independent variable (belief-discrepant, belief-supportive, belief unrelated, and accurate; hereafter they are referred to respectively as B-D, B-S, B-U, and A).

Prior to conducting an analysis of variance, however, the researcher must demonstrate that homogeneity of variance exists (i.e., that the perceived bias scores in each of the four treatment groups have approximately the same variance) when treatment group sizes are unequal. Since the group sizes were unequal in this experiment, a Bartlett-Box test was conducted to check for homogeneity of variance.²⁰ a P value of 0.861 was obtained ($F=0.250$), satisfying the assumption

²⁰The four group sizes were as follows, excluding cases with missing and/or "Can't Say" responses: B-D, 20; B-S, 18; B-U, 19; and A, 22 (N=79), representing a loss of 14 cases.

of homogeneity of variance. The results of the analysis of variance are reported in Table 1.

TABLE 1
ONE-WAY ANALYSIS OF VARIANCE:
PERCEIVED REPORTER BIAS SCORES
BY STORY VERSION TREATMENT GROUPS

Source of Variation	SS	df	MS	F-Ratio	F-Prob.
Between Groups	62.0146	3	20.6715	8.063	0.0001
Within Groups	192.2887	75	2.5638		
Total	254.3033	78			

A significant F-ratio in an analysis of variance, such as that reported in Table 1, does not reveal which of the treatment group means differs significantly from the others. Instead, a significant F-ratio indicates only that there is a difference among group scores on a dependent variable. In the present case, the results in Table 1 mean that subjects' perceived reporter bias scores differed significantly according to the news story version they read. The results do not tell which pairs of treatment groups contribute to the overall significance reported in Table 1.

A multiple comparison test is necessary to make such a determination. Scheffé's test was chosen because it is the most conservative of the available multiple comparison tests in SPSS subprogram ONEWAY. A conservative test, as opposed to one that is more liberal, "will

indicate that two means are significantly different only when the means are far apart" (Huck, Cormier, & Bounds, 1974, p. 69). The use of a more conservative multiple comparison test can avoid two groups being labeled as significantly different when their means are not very far apart, thereby lessening Type I error. Table 2 reports the results of Scheffé's test.

TABLE 2
SCHEFFÉ'S TEST FOR SIGNIFICANT GROUP PAIR
DIFFERENCES ON PERCEIVED REPORTER BIAS

Group Perceived Reporter Bias Means*	S.D.	Group	Significantly Different Groups**
2.6842	1.6004	Belief-Unrelated	
3.3182	1.4272	Accurate	
3.7222	1.6735	Belief-Supportive	Accurate
5.1000	1.7137	Belief-Discrepant	Belief-Unrelated, Accurate

*The means refer to the semantic differential scale scores for the third scale in question one (p.72, Appendix C). A subject marking the blank nearest "Unbiased" would receive a score of one. A mark in the blank nearest "Biased" would result in a score of seven. The other blanks are numbered accordingly between those extreme values (i.e., two through six).

**Significant at the .05 level.

The hypothesis (p. 25) states that news stories with a B-D inaccuracy, unlike those with a B-S or a B-U inaccuracy, cause such stories to be judged intentionally biased--in this case by the reporter.

The group means reported in Table 2 appear to confirm the hypothesis, since the B-D group's perceived reporter bias mean of 5.1 falls into the "Biased" range of the semantic differential scale item (values of five through seven). The means for B-S and B-U do not.

However, Table 2 shows that while the perceived reporter bias means are significantly different for the B-D and B-S groups compared to the A group, B-D and B-S themselves do not differ significantly. The B-D and B-U groups do differ significantly. Thus far, only part of the hypothesis is supported. It states that subjects reading a B-D story would perceive reporter bias, while those reading the other three types would not. Those who read the B-D story version did indeed perceive a significantly different degree of reporter bias from those who read A and B-U stories, but not from subjects who read the B-S version.

The hypothesis also predicted there would be no significant difference in perceived reporter bias between the B-U and A groups. This is confirmed by Table 2, since the mean difference between the two groups is not statistically significant.

The hypothesis covers perceived editor bias as well. The Bartlett-Box test verified homogeneity of variance ($P=0.763$, $F=0.386$); so a one-way analysis of variance was conducted with perceived editor bias as the dependent variable (the third scale in question [2], p. 72, Appendix C) and the story versions as the independent variable. Results of this analysis are shown in Table 3.²¹

²¹The four group sizes were as follows, excluding cases with missing and/or "Can't Say" responses: B-D, 16; B-S, 18; B-U, 17; and A, 20 ($N=71$), representing a loss of 22 cases.

TABLE 3

ONE-WAY ANALYSIS OF VARIANCE: PERCEIVED EDITOR BIAS
SCORES BY STORY VERSION TREATMENT GROUPS

Source of Variation	SS	df	MS	F-Ratio	F-Prob.
Between Groups	27.0980	3	9.0327	4.179	0.0090
Within Groups	144.8174	67	2.1615		
Total	171.9153	70			

The significant F-ratio reported in Table 3 allows a multiple comparison test to determine significantly different pairs of groups. The results of Scheffé's test are given in Table 4.

TABLE 4

SCHEFFÉ'S TEST FOR SIGNIFICANT GROUP PAIR
DIFFERENCES ON PERCEIVED EDITOR BIAS

Group Perceived Editor Bias Means*	S.D.	Group	Significantly Different Groups**
2.4118	1.2277	Belief-Unrelated	
3.0000	1.4551	Belief-Supportive	
3.5500	1.5720	Accurate	Belief-Supportive
4.1250	1.5438	Belief-Discrepant	Belief-Unrelated

*The means refer to the semantic differential scale scores for the third scale in question two (p. 72, Appendix C). A subject marking the blank nearest "Unbiased" would receive a score of one. A mark in the blank nearest "Biased" would result in a score of seven. The other blanks are numbered accordingly between those extreme values (i.e., two through six).

**Significant at the .05 level.

Table 4 shows that the B-D group differs significantly from the B-U group, but not from the B-S or A groups. Therefore, the hypothesis is not confirmed for perceived editor bias. The lack of a statistically significant difference between the B-U and A groups, however, is in accord with the hypothesis.

The findings of the two one-way analyses of variance, and their associated Scheffé's tests, may now be summarized. For perceived reporter bias, it seems clear that news stories with a B-D inaccuracy were more likely to cause such a perception than the B-U or A stories. Yet there was no significant difference in perceived reporter bias between the B-D and B-S groups. Finally, experimental subjects apparently saw little or no reporter bias in the B-U story, since it did not differ significantly from the accurate version.

The findings are not the same for perceived editor bias, as shown in Table 5, since the B-D group was not significantly different from the A group. In addition, editors had lower perceived bias means than did reporters among the test groups (Table 2, p. 41, and Table 4, p. 43).

Analysis

The findings reported in Tables 1-4 strongly suggest that variation in perceived reporter-editor bias scores among subjects was due to differences in the news story versions. That much can be safely said, in the absence of convincing alternative explanations.

But reservations must be made in attempting to attribute group differences to the particular type of news story inaccuracy, as will be

TABLE 5

SUMMARY OF GROUP PAIR DIFFERENCES FOR
PERCEIVED REPORTER AND EDITOR BIAS

Perceived Reporter Bias			Perceived Editor Bias		
These Groups	differ from	These Groups	These Groups	differ from	These Groups
Belief-Discrepant		B-U & A	Belief-Discrepant		B-U
Belief-Supportive		A	Belief-Supportive		A
Belief-Unrelated		B-D	Belief-Unrelated		B-D
Accurate		B-S & B-D	Accurate		B-S

explained shortly. For the moment, recall that the hypothesis (p. 25) predicts that perceived bias will occur only when the issue affected by the inaccuracy is salient to readers. In addition, for purposes of the experiment, it was assumed that subjects would have a consensus regarding teachers' responsibility for declining SAT scores.

Table 6 shows that the hypothesized real-world condition of salience held in the experiment, since a large majority of subjects judged the SAT issue important to themselves and to the teaching profession

The small difference that does exist between personal and professional importance for the "Important" category may represent the inability of some of the subjects to conceive of other teachers taking the SAT issue as seriously as they do. Such subjects might see themselves as "more professional" than their colleagues.

So there seems little question that the hypothesized requirement

TABLE 6
PERSONAL AND PROFESSIONAL IMPORTANCE
OF THE SAT ISSUE TO SUBJECTS

Category*	N (P)**	N (Pro)***	% (P)	% (P)
Important	87	82	94.57	89.13
Neither Important nor Unimportant	3	4	3.26	4.35
Unimportant	2	6	2.17	6.52
TOTAL (less non-response)	92	92	100.00	100.00

*The semantic differential scale categories have been collapsed to facilitate presentation. "Important" includes responses one, two, and three on questions three and four (p. 71, Appendix C), while "Unimportant" includes responses five through seven.

**Designates personal importance.

***Designates importance to teaching profession.

of issue salience was sufficiently met for purposes of this experiment. A different case exists for the assumption that experimental subjects would exhibit a consensus on the responsibility of teachers for declining SAT scores (question [5], p. 71, Appendix C). Table 7 indicates there was considerable variation in opinion.

The lack of consensus shown in Table 7 tends to make it unclear how subjects viewed the B-D and B-S inaccuracies (although it is clear that in terms of reporter bias they were seen differently when compared to group A). Recall that the educator in the testimony was asked "How about teachers' responsibilities for the scores?" (Appendix B). The reply was "Indications are that they are not a major part of the

TABLE 7
SUBJECTS' OPINION ON TEACHER RESPONSIBILITY
FOR DECLINING SAT SCORES

Category*	N	% of Total
Believe Teachers Are Not Responsible	31	33.7
Believe Teachers Are Neither Not Responsible Nor Responsible	28	30.4
Believe Teachers Are Responsible	33	35.9
TOTAL (less non-response)	92	100.0

*The semantic differential scale categories have been collapsed to facilitate presentation. "Believe Teachers Are Not Responsible" includes responses one, two, and three on question five (p. 71, Appendix C), while "Believe Teachers Are Responsible" includes responses five through seven.

problem," which the experimental subjects were told was what the educator really did say at the hearing.

The educator's reply in the B-D story (Appendix D) was "Indications are that they are [emphasis added] a major part of the problem." That reply does not coincide with the accurate version and is indeed discrepant with the accurate reply. If a subject in the experiment indicated a belief that teachers were not responsible for declining SAT scores (question [5], p. 71, Appendix C), then the reply in the B-D version should have been belief-discrepant.

That was a central assumption made prior to the experiment, and

a major reason teachers were used as subjects. It was believed that most would disagree that teachers were responsible for declining SAT scores, thus enabling an experimental test of the hypothesis. Table 7, however, shows that two-thirds of the subjects thought otherwise.

A similar problem arises in interpreting how subjects viewed the B-S inaccuracy (Appendix D). Stories with that inaccuracy had the educator replying "Indications are that they cannot be blamed for the problem [emphasis added]." The assumption for the experiment was that a subject who believed teachers were not responsible for declining SAT scores would find such an inaccuracy belief-supportive.

If the assumption as to how subjects would view the B-D and B-S inaccuracies is correct (and it does not seem illogical), then there should be few interpretative problems regarding how the inaccuracies were viewed if all (or most) subjects believed teachers were not responsible for the scores. The problem is that for a subject who believed teachers were responsible for the lower scores (Table 7 shows that a third thought so), a B-D inaccuracy would actually be belief-supportive! And a B-S inaccuracy would be belief-discrepant.²²

Because of the variation in opinion Shown in Table 7, there should have been far less agreement with the hypothesis (p. 25) than was shown in Tables 1-4. Nevertheless, many key aspects of the hypothesis were supported by the experimental data.

²²The assumption of a B-U inaccuracy is that it should not be affected by opinion on the issue. It is so innocuous that it should be virtually ignored by readers. Tables 2 and 4 show that perceived reporter-editor bias of the B-U groups was not statistically different from that of the A group, thereby lending support to the assumption.

One possible explanation for this anomaly was the wording of question five (p. 71, Appendix C): "In your opinion, how responsible are teachers for declining SAT scores?" The question did not ask "How responsible are you for declining SAT scores?" It may be that as an individual a given teacher would not accept responsibility for playing a part in the nationwide decline of SAT scores. Yet the same teacher who believed he or she was not "part of the problem" might think that other teachers in general (who might be perceived as less careful or professional in their teaching) were.

In the absence of data, this is only conjecture. But it would account for the strong statistical significance of the results in Tables 1-4. It would also explain why the B-D groups reported more perceived reporter-editor bias than the other groups. In other words, this explanation would mean there was similarity of opinion on the issue after all, but it was simply not measured by the question.

Another explanation is that the question did accurately measure consensus, but that other considerations caused subjects to perceive the B-D and B-S inaccuracies as if they held similar opinions. For example, it could be that subjects who read the B-D story thought the inaccuracy caused teachers as a whole to look bad in the eyes of other readers, regardless of subjects' own opinion on the SAT issue. They might see the reporter as "out to get teachers" by making them appear irresponsible. That is, they perceive the reporter as biased. Subjects reading the story with the B-S inaccuracy might think the inaccuracy made teachers look good, and therefore not perceive bias--regardless of their own opinions of teachers' roles in declining SAT scores.

This explanation has the advantage of allowing for many interpretations of the variation in question five (p. 71, Appendix C), while making the point that subjects still responded to the B-D and B-S inaccuracies as if they held similar opinions. For example, Table 8 shows that subjects varied in their opinion of the expertise exhibited by the educator in the testimony (question [2], p. 71 Appendix C):

TABLE 8
SUBJECTS' OPINION OF THE EDUCATOR'S EXPERTISE

Category*	N	% of Total
Educator is Expert	43	46.7
Educator is Neither Expert Nor Not Expert	15	16.3
Educator is Not Expert	34	37.0
TOTAL (less non-response)	92	100.0

*The semantic differential scale categories have been collapsed to facilitate presentation. "Educator is Expert" includes responses one, two, and three on question two (p. 71, Appendix C), while "Educator is Not Expert" includes responses five through seven.

If the previous explanation is correct, the subjects' concern for how teachers were being portrayed in the news might override any effect perceived educator expertise had on their responses to question five (p. 71, Appendix C), if in fact it had any effect.

Thus, it could be that the experimental subjects were reacting to how they thought other readers would perceive their reference group. If this were the case, those in the B-D group saw the inaccuracy as adversely affecting the portrayal of teachers; those in the B-S group saw the inaccuracy as positive.

Other findings of the experiment must also be explained. A comparison of Table 2, p. 41, with Table 4, p. 43, indicated that the same pairs of groups were not significantly different for perceived reporter and editor bias. And an examination of the means in both tables shows that, in general, perceived bias was higher in Table 2 than in Table 4. In Table 2, for example, the B-D mean is 5.1 while in Table 4 it is only 4.125. In other words, the B-D group barely perceived any editor bias at all.

It may be that subjects had difficulty in conceiving of the editors' role in the newsgathering process. This difficulty then translated into caution in assigning responsibility for perceived bias; hence a mean lower than that for reporter bias.

A simpler explanation is that subjects considered the reporter as the more logical source of bias, since the reporter would presumably have closer contact with the news source than would editors, and would have been responsible for the actual writing of the news story. The editors might have been seen as rather distant judges of the reporter's copy, with no access to a standard of comparison by which the copy could have been found inaccurate. Thus, permitting the inaccuracy to remain (if in fact editors were seen as so doing) would not be evidence or their attempts to bias the story. Moreover, it was emphasized

in the experiment that the reporter had responsibility for writing the story (Appendix C).

It is more difficult to explain why there was no significant difference in perceived reporter bias between the B-D and B-S groups, though both differed significantly from A (Table 2, p. 41). There is no question that the B-D group perceived more reporter bias than the A group, and that the difference was statistically significant. That much is in agreement with the hypothesis. But why should there have been no significant difference between B-D and B-S, which the hypothesis also predicted?

It is possible to use a previously offered explanation to account for the present problem. It may have been that enough subjects who received the B-S version saw the news story as biased in favor of the educator, whose expertise they doubted (Table 8). In turn, they may have felt that other readers would perceive the educator as inexperienced, and a poor spokesperson for their reference group. The inaccuracy might then have been seen by those subjects as evidence of the reporter trying to make the educator look even more inexperienced, to the detriment of teachers.

Even more perplexing problems occur when trying to interpret several aspects of the results for perceived editor bias. The B-D group was significantly different from B-U, but not from A. And B-S differed from A, but not from B-D (Table 4, p. 43). Moreover, the ranking of the means is such that the B-U and B-S groups have lower perceived editor bias scores than the A group!

One explanation may have to do with question ordering. The

perceived editor bias question was the third item of four concerning perceptions of the editors. The identical four items had previously been asked concerning subjects' perceptions of the reporter (p. 72, Appendix C). Subjects may have varied their responses to the editor items, thinking that the researcher would otherwise conclude they had not been reading carefully and were engaging in set responses.

Finally, an analysis of covariance was undertaken in an attempt to judge the effects of variables not specified in the hypothesis on the dependent variables (perceived reporter and editor bias). These potential covariates were measured in the questionnaire in anticipation of a secondary analysis (see pp. 29-31). However, the requirements of an analysis of covariance are such that few of the covariates met the assumptions of the test.

For example, it was thought that it would be fruitful to adjust values on the dependent variables according to perceived teacher responsibility for declining SAT scores (question [5], p. 71, Appendix C) via an analysis of covariance. The purpose of so doing would be to detect the influence, through post hoc analysis, of the responsibility variable on bias perceptions. That variable, however, was not significantly correlated with either dependent variable, therefore making it illogical to include in an analysis of covariance.

The few other variables that met the assumptions of the test failed to provide any clarification of the anomalies that have been discussed.²³

²³Those variables were represented by questions one, two, and three (p. 71, Appendix C).

V. CONCLUSIONS

This research gives strong support to the proposition that perceptions of reporter and editor bias can arise from news story inaccuracies. In so doing, it strengthens Wilson and Howard's (1978) survey findings.

It would also appear to confirm that people perceive in messages exactly what they wish to see. This is analogous to the "mirage distortion" discussed by Kirk and Talbot (1966, p. 316), wherein information is added to the message by the receiver--information which was not intended by the sender. The added information would also seem to result in what the same authors call "fog distortion" (p. 313), since the unintended information "fogs out" that which was intended by the sender (resulting in a loss of information). Mirage distortion is, of course, similar to what Cooper and Jahoda had earlier referred to as "evasion" (1947).

If the explanations in the preceding chapter are correct, the findings were also influenced by subjects' "integration into a significant group," namely the teaching profession (Riley & Riley, 1959, p. 549). Yet the ideas behind evasion and reference group influence are nothing new to socio-psychological theory, as the citation dates confirm. Research which only appears to validate those concepts has contributed little to advancing scientific understanding of the mass media.

The present investigation, however, suggests more than that evasion does take place, or that reference groups are important.

Rather, it raises once again the issue of mass media power.

Without forgetting that the results were obtained in an experimental setting (and assuming the measurements were valid), one is struck by this aspect of the research: subjects in the B-D group, as contrasted with those in the A group, not only noticed the inaccuracy but were perfectly willing to state that it was evidence of intentional reporter bias--even though they had the opportunity to answer "Can't Say." This despite the fact they did not know where the news story was published, nor the policies of the paper that allegedly published the story, and had not the slightest notion of who the reporter and editors were!

Wilson and Howard's (1978) survey respondents were also willing to ascribe bias to reporters, but they apparently had much more knowledge of the context of noticed inaccuracies than did subjects in this research. At any rate, the findings of this study and Wilson and Howard's suggest the mass media take on unwanted power when they report inaccurately. By unwanted, one assumes the media have no desire to become inducers of bias perceptions. That is hardly in their interests. Yet, by reporting inaccurately, they may produce precisely that effect.

Ten years ago, the dominant view in communication research was that the mass media have limited effects, that they primarily only reinforce existing attitudes. Even today one still hears that view repeated in the literature. In recent years, however, there has been a reevaluation of this view of mass media, especially in connection with agenda-setting research. No one has yet suggested that the mass

media are powerful in the old bullet theory sense of omnipotent influence, but a number of researchers have begun to provide evidence that the media do much more than merely reinforce attitudes (Noelle-Neumann, 1973; Shaw, 1977).

Even with the supporting data supplied by Wilson and Howard, it would be premature to conclude on the basis of the present study that there is additional evidence the media are powerful, through a heretofore unsuspected mechanism. But the two investigations, by using complementary research methods, give reason enough to investigate further.

Additional research is required to show that inaccuracies do cause bias perceptions under a variety of conditions. If that should be the case, the limited effects view of mass media will have been weakened considerably. Prior to that time, however, much remains to be discovered about the hypothesized link between bias and inaccuracies.

A first step toward those discoveries would be development of existing inaccuracy typologies. The Kocher and Shaw categorization adapted for this study certainly should be reexamined, and probably revised, in light of the findings presented here. It seems uncertain, for example, whether what was called belief-discrepant inaccuracies in this study are actually related to an individual's personal opinion on some issue. If they are not, they do not deserve to be called belief-discrepant in the sense they were conceptualized for this research.

It might be more realistic to conceive of inaccuracies according

to how an individual thinks others will view statements containing them. An example will help to clarify this point. Suppose that a war veteran, who should have been described as "battle-scarred" in a story, was instead referred to as "battle-scared." Such a person should not care about the inaccuracy if he thought nobody would ever notice it. But because the story was published, he does have reason to believe it will be noticed, and reason to worry over how others might perceive him as a consequence of the inaccuracy.

Those other readers may not know that he was actually a decorated veteran. And if they did not know him, they would have no awareness of the inaccuracy, especially if the story did not elsewhere correct the impression it left.

It is worth pointing out that future research might profitably examine a dovetailing of the Berry and of the Kocher and Shaw typologies. For example, inaccuracies that "encourage a negative view" (to use the latter's classification) of some topic of reader interest might be further classified as subjective or objective. The same could be done for the remaining categories in the Kocher and Shaw typology. Then, an investigation could determine whether that further refinement of their categories produced variation in reader perceptions of bias.

Of course, some way would have to be found to rid Berry's typology of the overlap Kocher and Shaw detected. Whatever is done with the two categorization schemes, any subsequent new typologies and/or improvements to older ones should be undertaken to facilitate later research and to provide additional ways of further conceptualizing inaccuracy.

In addition to development (and experimental testing of the effects) of different categories of inaccuracies, it would be helpful to examine perceived reporter and editor bias in separate investigations, rather than together. The present research seems to suggest that persons more readily perceive bias in reporters than in editors, but it is not known to what extent this perception was attributable to the arrangement of questionnaire items. It should be determined exactly, however, where blame is placed for the inaccuracies, and why it is assigned to reporters rather than to editors (if that is the case).

Other conditions are likely to enhance the possibility that bias perceptions will arise from noticed inaccuracies. It would be helpful to determine the effect of editorials in strengthening perceived bias from inaccuracies. It may be that if readers know the position of a newspaper on a given issue, and an inaccuracy appears to favor that position, perceptions of editor bias will be encouraged.

The importance of issue salience needs to be further examined. Do persons for whom an issue had little or no salience perceive bias from inaccuracies in reports on that issue? Or is a higher degree of salience really a prerequisite for bias perception, as this study has stipulated? The present investigation did not answer those questions, since salience was essentially constant for almost all of the experimental subjects (Table 6, p. 46). The B-D group did perceive significantly more reporter bias than the A group, but since salience was apparently constant its contribution to the obtained effect cannot be determined.

Standards of comparison also must be explored. This study used an official record, but if the standard for comparison for accuracy had been a speaker subjects previously heard, would similar results have been obtained? One assumes that the standard used in the experiment was somewhat unusual for most of the experimental subjects. Even so, it was apparently sufficient to allow the differences reported in Section IV. Perhaps a more common standard (and research will be needed to determine what standards are most commonly used by readers) might have strengthened the differences further, or revealed new ones.

Experimentation with variations in inaccuracy placement within the story, and in the number of inaccuracies per story, could reveal the effects of those two variables in bias perceptions. Headline and picture caption inaccuracies could be examined as well.

One could also adapt many of these suggestions for future research to the broadcast media. They are as pervasive as newspapers, and the impact of inaccuracies in their reports may be greater than for print media.²⁴

These suggestions in no way exhaust the possibilities for inaccuracy research, but they do represent the more important areas that need to be investigated if there is to be any comprehensive

²⁴It can be argued that the Charnley method has perpetuated the focus of accuracy investigations on newspapers. Researchers have apparently found it easier to cut out stories and mail them to sources, than to transcribe broadcasts and mail the transcriptions to persons named therein. Singletary and Lipsky (1977) provide one of the few examples of the Charnley method applied to a broadcast medium.

understanding of the effects of inaccuracies on reader bias perceptions. It should be clear that no single survey or experiment will suffice in answering all the questions this research has raised.

Even so, the results of this study should be of interest to editors, by providing (along with Wilson and Howard's survey findings) even more reason to monitor copy for inaccuracies. Editors might also use the results to warn reporters and copy desk workers of heretofore unanticipated consequences of inaccuracies.

That warning might be better made, however, where it could do the most good: in journalism reporting and editing classes. While textbooks admonish would-be reporters and editors to be "Accurate Always," the admonishment seems to have the most impact only when instructors emphasize libel consequences of inaccuracies. The exercise of care needed to produce an accurate news story is otherwise often viewed by students as a reporting inconvenience, and often forgotten.

But the need for unbiased reporting in news stories is perhaps better appreciated by students, especially when teachers count off more for biased than inaccurate reporting. If students can be shown that inaccuracies may cause "significant distortions" of what was actually said or done (Kocher, 1979, p. 9), thereby leading to reader perceptions of reporter bias, more may be gained than by simply warning students to be accurate.

Of course, this does not mean that elimination of all news story inaccuracies will remove the probability of readers perceiving bias. Yet journalism students need to understand that steps can be

taken to reduce the likelihood of bias perceptions. It now appears that reporting accurately may provide a step.

This research also suggests that accuracy and bias may be strongly related, at least in contexts similar to that in the present research. Most textbooks, however, continue to treat the two as separate and unrelated. It may be that future reporting texts will be able to subsume journalism terms such as accuracy, attribution, and balance under a single heading: bias. For it can be argued that many of those terms are really important only insofar as they affect the product being sold (newspapers).

Editors and publishers are businesspersons, and for that reason they should be interested in research concerning reader perceptions of their product. It is probably true that many readers tolerate, and purchase, newspapers perceived as biased--particularly when there are no market alternatives. But one must consider advertisers as readers too; they may have other ways of reacting to newspapers perceived as biased besides not buying them.

The point being made is not that editors and publishers should live in fear of readers not buying their product, or of advertisers withdrawing support. Rather, it is simply in their economic interest to address problems which could lead to those consequences. If inaccuracies do lead to reader bias perceptions, then it would be prudent to aggressively discourage their appearance. This might be accomplished through regular counseling of reporters and copy editors in conjunction with checks of stories for which they have responsibility.

While the present research warns editors and publishers of an unpleasant consequence of inaccuracies meriting further investigation, it also raises the question of what other heretofore unassumed conditions may lead to reader perceptions of bias. It could be, for example, that the way an individual is identified in a news story may lead to such perceptions. In that context, it would be interesting to determine the effects of unnamed sources on bias perceptions.

Of course, at this point one can only speculate what other aspects of news stories besides inaccuracies might lead to perceived bias. For the moment, however, it appears that inaccuracies may have such an effect. That should be reason enough for editors, publishers, and media researchers to further explore inaccuracies and other news story conditions that may produce similar effects.

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APPENDICES

APPENDIX A

INTRODUCTION AND DIRECTIONS

INFORMED CONSENT STATEMENT

[NOTE: The University of Tennessee requires that an Informed Consent Statement be signed and dated by persons agreeing to participate in studies conducted and sponsored by students enrolled in the University.]

Please read and sign (if willing to participate in this study) the following:

I, the undersigned, understand the procedures used in this study involve reading a portion of legal testimony and a newspaper fragment describing that testimony. I will be asked to respond to questions regarding my opinions on information contained in the testimony and news story.

I understand there is no payment for participation in this study, and no penalty for discontinuing participation at any time. I realize there are no discomforts or risks (physical, psychological, social, or economic) involved in the study.

I understand the objectives of the study, and have been given opportunity to ask questions about it. I understand that my participation (or lack of same) will have no bearing on my employment.

I further understand that my identity will remain anonymous, and that this Statement will be kept for the duration of this project, and for at least three years thereafter.

(Signature) _____ (Date) _____

Project Director: Douglas J. Kocher, Communications Bldg. Rm. 93,
University of Tennessee, Knoxville, TN 37916. Phone: 974-6651

DIRECTIONS: The purpose of this study is to find out how you judge certain kinds of information in news stories. There are two ways newspapers summarize legal proceedings: either by using selected quotations from actual testimony with summary comments, or by printing longer portions of the testimony with fewer summary comments.

On the back of this page is a portion of an educator's testimony before a Congressional subcommittee on educational testing. It has been reproduced from the subcommittee's official record, and is an accurate account of what was said.

The testimony denotes questions by Q's and answers by A's. The Q's represent a subcommittee member's questions, while the A's are the educator's responses. Please read the testimony carefully, then signal that you have finished reading. You will then receive the rest of this survey.

PLEASE BEGIN READING.

APPENDIX B

EDUCATOR'S TESTIMONY

- 1 Q. So there is no question the SAT is widely used?
- 2 A. That is correct.
- 3 Q. Is there a nationwide trend toward lower SAT scores?
- 4 A. Yes, there is.
- 5 Q. And it has you concerned?
- 6 A. Well, it isn't a good sign. I consider the SAT a fairly
- 7 reliable indicator of academic preparation, so therefore
- 8 the quality of college freshmen is not improving.
- 9 Q. What do you mean by quality?
- 10 A. I'm referring to their verbal skills, their ability to
- 11 write a decent essay with proper grammar.
- 12 Q. But what's causing the problem?
- 13 A. Do you mean ---
- 14 Q. I mean, why have the scores been declining, in your opinion?
- 15 A. There are many reasons, but studies have shown that students
- 16 have outside influences such as television that we didn't
- 17 have. Also, texts aren't too well structured, and ---
- 18 Q. How about teachers' responsibilities for the scores?
- 19 A. Indications are that they are not a major part of the
- 20 problem.
- 21 Q. You wouldn't want to qualify that?
- 22 A. No. I feel confident with my answer. I've done research on
- 23 SAT scores for many years.
- 24 Q. And you'd say most teachers would agree with your answer?
- 25 A. Yes, definitely.

APPENDIX C

QUESTIONNAIRE ITEMS

1

DIRECTIONS: On the reverse of this page are four questions asking your opinion on several aspects of the testimony you just read. There are no right or wrong answers. Each question is accompanied by two words, opposite in meaning, with seven lines between. For each question, place an X on one of the lines. The example below will show you how to interpret the lines.

EXAMPLE

Suppose you were asked this question: "Would you describe the movie shown on TV last night as good or bad?"

Assuming you saw the movie, and thought it was "extremely good," place an X as follows:

GOOD X : : : : : BAD

If you thought the movie was "extremely bad," place the X here:

GOOD : : : : : X BAD

If you thought the movie was "neither good nor bad," the X would go here:

GOOD : : : X : : : BAD

If you thought it was "somewhat good," place the X here:

GOOD : : : X : : : BAD

Or here if you thought it was "somewhat bad":

GOOD : : : : : X : : : BAD

If you thought the movie was between "somewhat good" and "extremely good," the X would go here:

GOOD : X : : : : : BAD

And it would go here if you thought the movie was between "somewhat bad" and "extremely bad":

GOOD : : : : : X : : : BAD

IMPORTANT! (1) Place the X in the middle of the line you choose to answer each question, not on the boundaries:

This NOT THIS
: : : X : : : X

(2) Answer each question.

(3) Place only one X on a line as your answer to each question.

NOW PLEASE ANSWER THE QUESTIONS ON THE REVERSE OF THIS PAGE.

2

PLEASE DO NOT
MARK IN THIS
COLUMN

- (1) If in a news story you read the testimony exactly as it appeared in the example you saw, and in the same Q & A format, how dependable would you judge the information in the news story portion containing that testimony?

1	2	3
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DEPENDABLE : : : : : UNDEPENDABLE

- (2) On the basis of his testimony, how expert would you judge the educator?

4

NOT EXPERT : : : : : EXPERT

- (3) How important would it be to you personally if teachers were blamed for declining SAT scores?

5

UNIMPORTANT : : : : : IMPORTANT

- (4) How important to the teaching profession is the issue of declining SAT scores?

6

UNIMPORTANT : : : : : IMPORTANT

- (5) In your opinion, how responsible are teachers for declining SAT scores?

7

NOT RESPONSIBLE : : : : : RESPONSIBLE

8

PLEASE GO ON TO THE FOLLOWING.

DIRECTIONS

To the right is a fragment of a newspaper story reporting the educator's testimony before the subcommittee. The newspaper reporter was present at that hearing, and heard the testimony you read earlier. Names have been blacked out to avoid prejudicing your reactions to the story.

Please read the news story as you would any newspaper article of interest to you. Then answer the questions on the next page.

NEWS STORY APPEARED

HERE (see Appendix D).

3

DIRECTIONS: Please give your opinions regarding the news story on the preceding page by responding to each question below. If you cannot answer a question, place an X in the blank marked "Can't Say" following each pair of words in questions 1-3. Otherwise, these questions are to be answered using the same instructions as for the preceding set of questions. Keep in mind the reporter who wrote the news story was present at the subcommittee hearing, and covered the testimony you read earlier.

MARK AN ANSWER FOR EACH PAIR OF WORDS.

		PLEASE DO NOT MARK IN THIS COLUMN
(1) I'd like to ask your opinion of the reporter who wrote the news story. On the basis of that portion of the story you just read, would you say the reporter is:		
TRUSTWORTHY _____	UNTRUSTWORTHY _____ Can't Say _____	9
INCOMPETENT _____	COMPETENT _____ Can't Say _____	10
BIASED _____	UNBIASED _____ Can't Say _____	11
CARELESS _____	CAREFUL _____ Can't Say _____	12
(2) Now I'd like your opinion of the newspaper editors whose approval, as is customary, was needed for the reporter's story to be printed. On the basis of that portion of the news story you read, would you say the editors are:		
TRUSTWORTHY _____	UNTRUSTWORTHY _____ Can't Say _____	13
INCOMPETENT _____	COMPETENT _____ Can't Say _____	14
BIASED _____	UNBIASED _____ Can't Say _____	15
CARELESS _____	CAREFUL _____ Can't Say _____	16
(3) No matter whether you agree or disagree with the educator's testimony, how would you describe the news report of that testimony?		
ACCURATE _____	INACCURATE _____ Can't Say _____	17
BIASED _____	UNBIASED _____ Can't Say _____	18

Here are several more questions I would like you to answer. Just place an X in the one blank that best represents your opinion.

- (4) In general, would you prefer to read:
- ___ 1. Newspaper stories which incorporate testimony in the manner of the news story you read.
- ___ 2. Newspaper stories reprinting testimony in Q & A format.
- ___ 3. No preference.
- (5) How often do you read newspapers?
- ___ 1. Every day ___ 2. Occasionally ___ 3. Rarely, if ever
- (6) In the past two years, about how many times have you written a letter to the editor?
- ___ (Number of times)

19

20

21

PLEASE GO ON TO THE NEXT PAGE.

4

PLEASE DO NOT
MARK IN THIS
COLUMN

- (7) How many years have you been a certified, full-time teacher?
 ___1. Less than 5 ___2. 5-10 ___3. More than 10 years
- (8) Do you currently teach in elementary school or in grades 7-12?
 ___1. Elementary ___2. Grades 7-12 ___3. Retired
 ___4. Other (please specify) _____
- (9) Which subject have you primarily taught since becoming a certified, full-time teacher (if you are an elementary teacher, or have primarily taught more than one subject, please specify)?

- (10) While reading a newspaper, have you ever noticed an inaccuracy in a news story in which you were named?
 ___1. Yes ___2. No
- (11) While reading a newspaper, have you ever noticed an inaccuracy in a news story covering a topic of interest to you, but which did not identify you in the story?
 ___1. Yes ___2. No
- (12) If you had to guess, based on the news story you read, what would you say was the editorial position of the newspaper that published the story?
 ___1. Teachers are primarily responsible for declining SAT scores.
 ___2. Teachers have little responsibility for declining SAT scores.
 ___3. Some other position.
 ___4. Newspaper has no position.
 ___5. Can't guess.
- (13) What age bracket are you in?
 ___1. Under 30 ___2. 30-39 ___3. 40-49 ___4. 50 or older
- (14) Are there any comments you would like to make regarding the testimony and/or news story portions you read? Please use the space below.

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END OF SURVEY. THANK YOU!

APPENDIX D

THE FOUR VERSIONS OF THE NEWS STORY

Belief-Discrepant

In his testimony before the subcommittee, he said there was a nationwide trend toward lower SAT scores.

Congressman [REDACTED], acting chairman of the subcommittee, asked [REDACTED] whether the trend had caused him concern.

[REDACTED] said that it had, because the "quality of college freshmen is not improving." He said he was referring to their ability to write "a decent essay with proper grammar."

[REDACTED] pressed for reasons to account for the declining SAT scores.

[REDACTED] responded that many factors were involved, including the influence of TV and less-structured textbooks.

[REDACTED] wanted to know whether [REDACTED] thought teachers were responsible for the lower scores.

B-D ["Indications are that they are a major problem," [REDACTED] said.

He said his experience with the SAT score issue made him confident that most teachers would agree with his assessment.

Belief-Supportive

In his testimony before the subcommittee, he said there was a nationwide trend toward lower SAT scores.

Congressman [REDACTED], acting chairman of the subcommittee, asked [REDACTED] whether the trend had caused him concern.

[REDACTED] said that it had, because the "quality of college freshmen is not improving." He said he was referring to their ability to write "a decent essay with proper grammar."

[REDACTED] pressed for reasons to account for the declining SAT scores.

[REDACTED] responded that many factors were involved, including the influence of TV and less-structured textbooks.

[REDACTED] wanted to know whether [REDACTED] thought teachers were responsible for the lower scores.

B-S ["Indications are that they cannot be blamed for the problem," [REDACTED] said.

He said his experience with the SAT score issue made him confident that most teachers would agree with his assessment.

Accurate

In his testimony before the subcommittee, he said there was a nationwide trend toward lower SAT scores.

Congressman [REDACTED], acting chairman of the subcommittee, asked [REDACTED] whether the trend had caused him concern.

[REDACTED] said that it had, because the "quality of college freshmen is not improving." He said he was referring to their ability to write "a decent essay with proper grammar."

[REDACTED] pressed for reasons to account for the declining SAT scores.

[REDACTED] responded that many factors were involved, including the influence of TV and less-structured textbooks.

[REDACTED] wanted to know whether [REDACTED] thought teachers were responsible for the lower scores.

A ["Indications are that they are not a major part of the problem," [REDACTED] said.

He said his experience with the SAT score issue made him confident that most teachers would agree with his assessment.

Belief-Unrelated

In his testimony before the subcommittee, he said there was a nationwide trend toward lower SAT scores.

Congressman [REDACTED], acting chairman of the subcommittee, asked [REDACTED] whether the trend had caused him concern.

[REDACTED] said that it had, because the "quality of college freshmen is not improving." He said he was referring to their ability to write "a decent essay with proper grammar."

[REDACTED] pressed for reasons to account for the declining SAT scores.

[REDACTED] responded that many factors were involved, including the influence of TV and less-structured textbooks.

[REDACTED] wanted to know whether [REDACTED] thought teachers were responsible for the lower scores.

B-U ["Indications are that they are not a big portion of the problem," [REDACTED] said.

He said his experience with the SAT score issue made him confident most teachers would agree with his assessment.

VITA

Douglas Joseph Kocher was born in South Bend, Indiana on October 7, 1950. He graduated from Winamac (Indiana) Community High School in May, 1969 and entered Valparaiso University in Valparaiso, Indiana in September, 1969. He graduated from that institution with a Bachelor of Arts degree in a double major of Geography and English.

He received the Master of Science degree in Geography from The University of Tennessee, Knoxville, in March, 1976 and entered the doctoral program in Communications there in September, 1976. He received the Ph.D. in June, 1979.

While at The University of Tennessee he was inducted into the university chapters of Phi Kappa Phi, Omicron Delta Kappa, and Kappa Tau Alpha. He is a member of the International Communication Association and the American Association of Public Opinion Research.

Upon graduation from The University of Tennessee he assumed a position as assistant professor of communication arts at St. Norbert College in De Pere, Wisconsin.