Examining Androcentric Bias in a Scholarly Journal.

In the early 1980s, Shakeshaft and Hanson reviewed the 10 volumes of "Educational Administration Quarterly" (EAQ) that were published during the 1970s for evidence of androcentric bias. Androcentric bias is said to occur when the theory and research is informed by the male perspective. The underlying assumption is that the experience of males and females is the same and therefore research based on the male perspective is appropriate for generalizing to the female perspective. They found androcentric bias in all phases of the research. This paper describes findings of a study that examined research conducted in the 1980s and early 1990s. Using Shakeshaft and Hanson's (1986) criteria, articles published in the EAQ during the 1980s and early 1990s were analyzed. The three data sets for each decade were then compared. The sample included 90 articles from the 1970s, 75 from the 80s, and 56 from the 90s. Overall, there has been a slight decrease in androcentric bias in the EAQ within the last 2 decades. The areas of most visible improvement included the use of inclusive language or author gender. Areas of bias that were less evident—such as research theories, instruments, and frameworks—appear to change more slowly. Eight recommendations for reducing androcentric bias are made. Two tables are included. Contains 70 references. (LHI)
Examining Androcentric Bias in a Scholarly Journal

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by
Juanita Ross Epp
Faculty of Education
Lakehead University
Thunder Bay, Ontario

Larry Sackney
Department of Educational Administration
University of Saskatchewan
Saskatoon, Saskatchewan

Jeanne Kustaski
Department of Educational Administration
University of Saskatchewan
Saskatoon, Saskatchewan
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During the last decade there has been a shift in the world view which dominates Western culture. The new world view is marked by, among other things, a de-emphasis of male-oriented values of rationality, competition, and independence (Rogers, 1989). Postmodern writers argue that this new world view needs to be reflected in organizational theorizing and leadership. Calas and Smircich (1992), for example, argue that “gender has been written into organizational theorizing in incomplete and inadequate ways and that organizational analysis has understood gender very narrowly” (p. 227).

In educational administration, women still do not proportionately reflect the gender composition of the teaching force. The reason for the imbalance may be androcentric bias embedded in organizational theory and reflected in societal expectations for women (Shakeshaft, 1989b, p. 150). Women are limited by these assumptions because “theories and concepts emerging solely from a male consciousness may be irrelevant for the female experience and inadequate for explaining female behavior” (Shakeshaft, 1989a, p.324). Androcentric bias contributes to the perception that women are not (or should not be) interested in administration, discourages those who may be interested, and supports the assumption that there is little difference between male and female leadership. Examining bias, contend Calas and Smircich (1992), implies “questioning the gendered nature of traditional epistemologies and institutional arrangements, and the interests they have been serving under the guise of ‘knowledge’” (p. 227).

Early in the 1980’s, Shakeshaft and Hanson reviewed the ten volumes of the 1970’s Educational Administration Quarterly journal (EAQ) for evidence of androcentric bias. They found androcentric bias, both methodological and conceptual, in all phases of the research. Bias was found in problem selection and formulation, review of previous research, selection of samples, data collection procedures, and interpretation of results (Shakeshaft & Hanson, 1986, p. 86).

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In the present study, we assumed that research in the 1980’s and early 1990’s would more likely include the female experience. Using Shakeshaft and Hanson’s (1986) criteria, we examined the articles published in the EAQ during the ‘80’s and the first part of the 90’s for evidence of androcentric bias. We then compared the three sets of findings. In this paper we clarify the androcentric bias concept, summarize the findings of the original study, and describe the present study while comparing it with the original.

**Androcentric Bias**

Androcentric bias is said to occur when the theory and research is informed by the male perspective. The underlying assumption is that the experiences of males and females are the same, and therefore research based on the male perspective is appropriate for generalizing to the female experience. Research, by its very nature, reflects a particular worldview. The harm is not so much in the worldview, but in the belief that it is the only lens through which to understand human behavior.

Research or theories identified as being androcentric are not wrong but incomplete. Theories and concepts based only on the male experience may not be relevant for females and may be of minimal value to explain female experience. By identifying the male bias within the research framework we can begin to clarify the parameters used in accepting, understanding and applying the results. Moreover, we can begin to address what is missing, what has been overlooked, and what has not been stated (Shakeshaft, 1989b, p. 151).

Shakeshaft (1989b) suggested that androcentric bias existed in educational administration literature because it had not been identified. She examined five prominent theories of educational administration for androcentric bias and found them lacking. For example, she noted that the Getzel and Guba model was “essentially imbalanced and incomplete” because women were not included in the study (p. 153). Similarly, Hemphill and Coon’s Leader Behavior Description Questionnaire observed only men in leadership positions. Female conceptions of leadership were ignored. Even Maslow’s theory of motivation and self-actualization may be incomplete as his defined needs of “people” assumed that self-actualization for women could only occur through sex-role fulfillment or sex-role denial. Shakeshaft argued that by placing self-actualization above self-
esteem and self-esteem above affiliation, Maslow assigned greater value to traditional male spheres of work and reward. In essence, by placing them on the hierarchy above the traditional female roles of home and relationship, Maslow equated “excellence in humanity . . . (with) . . . excellence in masculinity” (Shakeshaft, 1989b, p. 158). In her examination of the theories, Shakeshaft concluded that “when the female behavior ran counter to the theory, it was the female rather than the theory who was found inadequate” (p. 159).

Problems also occurred when researchers used male terminology to define concepts or generic terms. For example, when reference was made to the school administrator using the male pronoun, the wording predisposed the respondent to respond in male terms using male models.

Androcentric bias would be of little consequence if women and men carried out their leadership functions in similar fashion. But, research concludes otherwise.

1. Women and men perceive the world in different ways. Bannister (1990), for example, suggested that “Men and women have different conceptions of self and different modes of interaction with others as a result of their different experiences” (p. 6). Gilligan (1982) found that men and women reasoned morally in different ways. Women operating in a web, suggesting inter-connectedness and entrapment; while men operated on a ladder, suggesting achievement orientation, hierarchical thinking and escape. Moreover, the male ethos was based on power and competition, whereas the female ethos was based on love, duty, and care.

2. Changing leadership paradigms may be more in keeping with the female ethos. The assumptions of the paradigm shift portend a changed way of viewing and leading people. Rogers (1989) contends that management of resources will be replaced by management of meaning. The essence of the new form will be transformative leadership, vision, and empowerment. Such leadership necessitates an emphasis on relationships, process, groups, networking, intuition, feelings, perceptions and collaboration (p. 6). As a result, the paradigm shift will legitimate the female ethos. “Thus success in leadership no longer requires women to act like men, but rather to implement and integrate female ethos values into the practice of leadership” (p. 6).
3. The public expectation of "male" characteristics of leadership discourages women from seeking administrative positions. Nixon (1987) contends that androcentric bias fosters the stereotypical view of the proficient principal as one who emphasizes efficiency, control and accountability. She felt that as long as leaders were being defined with male characteristics, few women would opt for administrative positions and those that did apply would be disadvantaged as long as leadership was equated with male leadership styles.

4. Women interpret the role of the principal differently from men. Estler (1987) argues that women perceive the role of the principal as requiring higher levels of competency than do men. Women expect to use more skills and knowledge and believe they need a higher level of expertise than men think they need to do the job.

5. Although women lead differently, research shows that, in general, women are effective administrators. (Arons, 1980; Estler, 1987; Shakeshaft, 1987, 1986). They exhibit a propensity toward democratic leadership, a thorough approach to problem solving, and a bent toward instructional leadership—all factors which are rated highly by teachers and superiors (Meskin, 1974). Moreover, female administrators emphasize achievement, set instructional strategies, provide an orderly atmosphere, frequently evaluate student progress and coordinate instructional programs, all of which are activities necessary for an effective school (Sweeny cited in Shakeshaft, 1987, pp. 7-8).

6. A blend of both styles would benefit our school systems. Blanchard and Sargent's (1984) view of the "Androgynous Manager" suggests that leaders need a repertoire of both masculine and feminine behaviors and approaches to strengthen the leadership currently existing in school systems. Similarly, Loden (1985) believes we need to recognize and use both styles, and to view them as complementary.

7. Androcentric bias in research affects practice. Our views of leadership theory determine how power, status and money are distributed. "Leadership theory that assumes a male perspective, or theory in which male values are so deeply embedded as to be invisible, ensures that only males, or women adopting male views, will be selected as leaders, will continue to lead and thereby set
courses, define visions and create new worlds” (Intriligator, cited in Davies, 1985, p. 180). In essence, the paradigm that we use determines our view of social reality; and if that paradigm values maleness, then that is what will be valued.

In summary, androcentric bias does matter because it may exclude women from administrative positions and thereby deprive the schools of important human resources. It also precludes women as a group from having the opportunity to use a different approach to leadership which is required in a postmodern world.

Identifying Androcentric Bias

By definition, androcentric bias entails an underlying assumption, namely an unspoken acceptance of the universality of male experience. When it comes to identifying this acceptance, it is difficult to document this assumption. Shakeshaft and Hanson (1986) attempted to measure bias by using specific quantifiable criteria. We have used a similar approach in our analysis, although we are cognizant of the difficulties in trying to count and tabulate an underlying assumption.

Shakeshaft and Hanson’s study arose from the premise that research in the social sciences was becoming critical of the existing paradigms and that this criticism could be laying the groundwork for transforming social science, and society itself, to include all human experience. The present study was undertaken with a similar premise in mind. In particular, we were influenced by postmodernism and the transformations that are occurring within that worldview. In other words, if the groundwork for transformation was laid in the 1970’s, could we assume that great strides have taken place in the 1980’s and early 1990’s?

Shakeshaft and Hanson (1986) surveyed all 178 articles published in the EAQ during the 1970’s for overt signs of androcentric bias. We did a similar assessment of the 180 articles published in the EAQ from 1980 to 1990, that is from Volume 16 to Volume 25. In addition, we examined the 72 articles published from 1990 to 1994, that is from Volume 26 to Volume 29. Shakeshaft and Hanson derived their list of possible area of bias from an outline prepared by the Committee on the Status of Women in Sociology and published in the
American Sociological Association Footnotes in January of 1980. The six main areas and subcategories were as follows:

1. Description of Articles (gender of authors, language used).
2. Research Problem Selection and Formulation (gender as the basis for problem formulation and gender for which problems were formulated).
3. Review of Previous Research (lack of citations on female experience, absence of statement of gender of samples in reviewed research, lack of methodological critique of articles unfavorable to women).
5. Data Collection (instrument or survey bias, reporting of gender of interviewers and interviewees).
6. Interpretation of Research Results (generalizations to gender mixed populations, generalizations based on balanced samples, explanations for gender differences).

In the original and in the present analysis, all articles were examined for gender of authors and language usage. Then, only those articles which focused on human or social issues were further examined. In total, 90 articles in the 70’s study, 75 articles in the 80’s study, and 56 articles in the 1990’s were examined for the remaining indicators of bias.

It should be noted that our assessment was based solely on a content analysis of the articles as they appeared in the EAQ. We did not attempt to contact the authors or do any follow-up work in order to assess or obtain any elaboration of their work. The presence or absence of bias was often a matter of perception or interpretation. We have attempted to justify our reasons for specifying bias to an article by making specific reference to the report. Each of the areas of bias are addressed individually in the sections that follow.

1. Description of Articles

The analysis of gender of author and the use of inclusive language was done for all articles (178 in the 70’s, 180 in the 80’s & 72 in the 90’s) regardless of the subject matter.
Gender of Author(s)

Table 1 provides the gender of the authors for the various decades. These numbers suggest a steadily improving acceptance of women’s scholarship during the 1980’s and the beginning of the 1990’s. During the 1970’s there were five articles published by women working alone, whereas during the 1980’s there were 13 such articles and for the first four volumes in the 1990’s there were 12. Where there were no female co-authored articles during the 1970’s there were three in the 1980’s and two for the first part of the 1990’s. Women still tend to publish with men (5.6% in 1970’s; 20.0 % 1980’s; 29.2% for first part of 1990’s).

The gender of persons acknowledged for substantial contributions in terms of encouragement, helpful comments, critiques and editing was also noted in the surveys. There were 70 people acknowledged during the first part of 1990, 26 (37%) of whom were female and 104 people acknowledged during the 1980’s, 19 (18%) of whom were female. During the 1970’s, on the other hand, only 48 institutions or people were acknowledged and 5 (10%) were female.

Language Usage

There was a substantial shift in the incidence of the use of inclusive language from one decade to the next. In the 1970’s, although 25% of the articles included both males and females in their language usage, 112 out of 118 articles (62.9%) were judged to be written from the point of view that “women do not exist” (p.72):

Not only were the pronouns “he,” “him,” and “his” used exclusively in these articles but the writers employed exclusive terms such as “men of power,” “administrative man,” “man in the middle,” and “one-man-deciding-alone-model” (p. 72).

In some cases, the pronoun changed throughout the article. Bacharach and Mitchell (1981) started out using 'he or she' for teachers and principals, but later used 'he' to refer to the superintendent. Likewise, Lipsky (1982) referred to the scholar and researcher as 'he or she' but, when drawing conclusions, the buyer of labor services became 'he' with 'his workers' (p. 36).

Most of the exclusive language occurred in the early part of the 1980's and had disappeared by the early 1990's. In all probability, this is a result of the editorial board's policy against its use.

It appears that most authors in the late 1980's and early 1990's have attempted to avoid the gender pronoun. Most write in the plural form using the words "they" and "individuals." Where the confusion arises is when authors use inclusive language when developing their generalizations and conclusions, when the sample was all male (e.g., Martin & Willower, 1981 observed 5 male principals yet never used the masculine form in their discussion and conclusions). In such a case, if the authors had not specified that their subjects were male, the language would lead the reader to conclude that the sample had been mixed or that the findings were generalizable to include female principals. This problem appears to continue during the 1990's.

2. Research Problem Selection and Formulation

Only those articles which were "social issues" oriented were considered for the remaining indicators of gender bias (90 in the 70's, 75 in the 80's, & 56 in 90's). Shakeshaft and Hanson (1986) argued that gender should be a theoretical part of the problem formulation if the findings were to be applicable to both females and males.

Gender as Basis of Problem Formulation

During the 70's, nine out of 90 (10%) articles had gender as a theoretical variable compared to 10 out of 75 (13.3%) in the 80's and eight out of 56 (14.9%) in the first part of the 90's. All ten articles published during the 80's that had gender as a theoretical variable were written by females or mixed gender teams. In the early part of the 90's, on the other hand, four out of the eight articles were written by male teams and the other four articles were written by
women, either working alone or with men. This seems to suggest that males may be more sensitive to gender bias by the 90’s.

The topics of articles which included gender as a theoretical variable included gender gaps in educational administration research (Shakeshaft, 1989), school administrator’s values (Marshall, 1993), recruitment brochure content (Young, Galloway, & Rinehart, 1990) and salary differentials (Pounder, 1988, 1989). Aspirations and access to various administrative positions were also popular topics (Stockard & Kemper, 1981; Bowker, Hinkle & Worner, 1983; Maienza, 1986; Bredeson, 1993). Gender was an important part of Kuh and McCarthy’s (1980) examination of research orientation of doctoral students.

In 17 other articles, gender was considered as an independent variable. Ten of these looked at teachers. There were studies on teacher allocation and retention, teacher career paths, teacher leaders, and teacher motivation. The other seven looked at principals and issues such as administrative control, job satisfaction, and role strain.

The difficulty with assessing gender bias in problem formulation is that while researchers may indicate that the problem was formulated for both gender, yet they may not discuss gender differences in their findings (e.g., Conley & Levinson, 1993). One is left wondering whether there was an absence or presence of gender considerations. In this case, did gender matter in terms of job satisfaction?

Some issues could be deemed relevant for only one gender, for example, ‘barriers to women in administration’. In the 70’s, 12.2% of the articles were concerned with ‘males issues’ and 2.2% were concerned with ‘female issues’. In the 80’s, the opposite was true, 13.3% of the articles explored issues related to women and none referred to male issues. In the early 90’s 3.6% of the articles dealt with women’s issues and none dealt with men’s issues.

Although there was an increase in research which considered gender differences, the attempt to count ‘non-biased’ articles may be misleading. Language usage that is non-sexist added to the perception that both genders were being considered and required greater scrutiny to determine whether females were actually considered.
3. Review of Previous Research

Citation of Female Experiences

During the 70's, studies examining women's experiences were seldom included in the research reviews. In the 80's and early 90's, studies supporting female experiences were mentioned in 14 of the literature reviews. Essentially these articles tended to be those that used gender as a theoretical or independent variable. Research on women was included in reviews when the study itself dealt with gender concerns.

Methodological Critique

Whereas Shakeshaft and Hanson found studies that reported women to be "inferior" in some way, such was not the case in the 80's and early 90's. Some of the studies from the 80's could be construed to be reflecting androcentric assumptions. For example, studies that suggested that women had lower aspirations than men or that women did not seek administrative positions because teaching was more fulfilling for them, were assumed to be biased, not for what they stated but for what was not mentioned. Additionally, a number of studies used theories that have been challenged as being androcentric. For example, Macpherson (1984) referred to Maslow's hierarchy of needs which, as mentioned earlier, Shakeshaft (1989b) deemed to be biased.

4. Population and Sample Specification

Gender of Sample

Shakeshaft and Hanson (1986) considered a sample to be balanced if no more that 70% of the sample consisted of one gender. However, few researchers specify the make-up of their sample. In their original study, 22.2% of the authors specified the gender of the sample. In the articles of the 80's and early 1990's, 41.3% and 23.5% respectively specified the gender of the samples.

Shakeshaft and Hanson noted that there was more of a tendency to report gender when the respondents were teachers or students, than when they were administrators. This changed in the 80's and early 90's as gender samples for administrators was being reported more frequently.
In the 70's, 10 (50%) of the reported gender samples were unbalanced. In the 80's, 19 (61.3%) were unbalanced and 12 (38.7%) were balanced. In the early 90's, only one (10.7%) was unbalanced and the rest were balanced. While one could argue that there has been an improvement over the decades, many researchers still do not report the sample gender.

Six of the studies which reported the gender of the sample were about teachers. Two were balanced (69% females and 31% males; Blase, 1988; 29.3% male and 70.7% female, Scott & Wimbush, 1991). Two studies were nearly balanced (26.1% males and 73.9% females; Stark & Lowther, 1984; 13.4% female and 76.4% males; Hallinger et al., 1992). Two of the studies used male subjects only. Seven researchers did a case study of one individual who happened in all cases to be male.

Twelve other studies of administrators used gender balanced samples. Six used equal numbers of men and women (e.g., Pitner & Ogawa, 1981; Young et al., 1990). Two deliberately chose equal numbers of men and women even though the population being represented was not balanced (Bowker et al., 1983; Crowson & Morris, 1985). In another instance, four males and six females were studied even though only 34% of the administrators in that population were female (Crowson & Porter-Gehrie, 1980).

**Justification of Gender Imbalances**

Shakeshaft and Hanson felt that the issue of gender imbalance had not been adequately addressed. Only three out of ten authors in their study attempted to justify the imbalanced samples by noting that the samples had been drawn from a population where there were unequal numbers of males and females.

In the 80's and early 90’s, nine out of 20 authors made no attempt to justify the imbalance. For example, Firestone (1990) used two case studies of executives to study succession and bureaucracy. Fuske and Ogawa (1987) and Ogawa (1991) studied the transition process that occurred when a male principal retired and was replaced by another male principal. Cusik (1981) observed networks of communication in two schools. He chose to get close to a small group of male teachers because “It would have been considered odd if the researcher had chosen to join one of several groups of women” (p. 119).
In two cases, the authors did not justify the imbalance of their samples, but acknowledged that imbalances existed. Stark and Lowther (1984) noted that their sample over-represented young and male teachers. Misket et al. (1980) similarly noted that their sample slightly under-represented women.

Most authors did not address or acknowledge the sample imbalance, but most provided information on how the sample was derived. It seems that there is some attempt in the 80's and 90's to begin to justify samples when they are imbalanced.

5. Data Collection

Shakeshaft and Hanson (1986) argued that even if the sample was balanced, bias could still exist if the instrument used was not valid for women.

Instrument Bias

Shakeshaft and Hanson reported that 25% of the articles they examined had some discernible bias and eight articles (8%) had no detectable bias. The other studies did not include the instruments.

Of the articles published in the 80's and early 90's, 79 of the 118 that used an instrument, did not include it with the article. Seven articles included parts of the instrument, but inadequate information was available for us to judge bias. Instruments were included with six articles. No discernible bias was found.

Gender of the Interviewer/Interviewee

During the 70's, it was difficult to determine the gender of the interviewer and interviewee; sometimes it could be inferred that the author was also the interviewer. In the 80's and early 90's, 48 studies used interviews to gather data, however, only 50% reported the gender of the interviewer/interviewee. Although more authors are reporting gender, none discussed the implications of various male/female combinations.
6. Interpretation of Research Results

Shakeshaft and Hanson (1986) claimed that generalizations to both genders could only be made if both genders were represented in the sample. In the 70's, 47 implied that the results were generalizable to both genders, but only six (13%) were based on data drawn from balanced samples. Four had used predominantly male samples, and three used females samples. Gender was not specified in the other articles.

During the 80's, two-thirds of the articles implied generalizations to both genders. However, only 11 of the 50 articles had gender balanced samples. Of the remaining articles, the authors used gender inclusive language in their generalizations even though the sample gender had not been provided.

In the early 90's, 69% of the articles implied generalizations to both genders. Of these, four out of six which reported gender had gender balanced samples and the remaining articles used gender inclusive language but did not specify the sample gender.

Explanations of Gender Differences

Shakeshaft and Hanson reported that, for most of the 70's articles, gender differences were ignored. Differences were discussed in only two articles, but they felt that even these were not adequately elaborated. The majority of the authors in the 80's and early 90's also did not report any gender differences. If women were present in the sample, differences in perception between men and women were generally not noted.

Eighteen articles did report and discuss gender differences. In over half of those articles gender was a theoretical variable in the problem formulation. Pounder (1988, 1989) and Jones (1990) discussed gender differences. Others (e.g., Stockard & Kempner, 1981; Bowker et al., 1981; Maienza, 1986) looked at women's presence in and aspirations for administrative positions.

Overall, there has been a modest increase in the number of authors that have attempted to explain gender differences. However, most authors have tended not to report, and even less, to discuss gender differences.
Findings

There has been some improvement in the amount of androcentric bias reported in the EAQ in the 1980's and early 1990's compared to that reported in the 1970's. In this section the findings for the six general criteria around which the results were reported are discussed.

1. Description of Articles

More women were publishing in the 80's and early 90's than in the 70's. But females working with males may still have a better chance to gain recognition than women working alone or with other women. Men had partial authorship in 92% of the articles published during the 80's and 81% during the early 90's.

The increase in the number of female authors may be attributed to the presence of women on the editorial board of the EAQ. This, coupled with the fact that more women are studying and teaching in the field of educational administration, should reflect improvement in publication rates. When one views the number of women currently enrolled in graduate programs in educational administration, it is anticipated that the number of articles published in the EAQ should continue to increase.

The use of gender inclusive language was the most obvious improvement since the 1970's (from 62.9% to 6.7% to 0% exclusive). Gender inclusive language is now a requirement of APA style, and it is relatively simple for the author to incorporate inclusive language without eradicating bias. Gender bias in sampling and instrumentation still exists. Consequently, while it may appear that bias has been removed, in actual fact bias may be masked and made more difficult to identify.

2. Research Problem Selection and Formulation

This aspect of bias continues to be a problem. Most articles were unclear about the gender group targeted in the problem formulation. It could be argued that there is hope for changes in this aspect as the number of women publishing increases.
3. Review of Previous Research

The reviews of previous research generally excluded female experiences. This again may change as the number of women publishing increases.

4. Population and Samples

The gender of the samples in the 80's studies was reported 11% more often than it had been in the 70's and 28% more often in the early 90's compared to the 80's. There has been a slight improvement in the percentage of balanced samples.

As more women assume administrative positions, we should see an increase in the number of balanced samples. At present, however, this remains a problem. It may be necessary to purposefully sample females in order to gain their perspectives and to build up a body of literature that reflects women's realities and ways of administering. Calas and Smircich (1992) argue that it is necessary to allow for "the inclusion of a multitude of points of view, whether or not they are representative of the majority.

5. Data Collection

Research instrumentation was seldom included, consequently it was difficult to detect instrument bias. However, a number of articles did exhibit androcentric bias in theory base. Many instruments are still transferred directly from other fields or developed on the basis of male administrators.

6. Interpretation of Research Results

There has been a modest improvement in this area. A few more authors in the 80's and early 90's could credibly generalize to both genders. Most researchers still did not report the gender of their samples and since so many of those that did were unbalanced, it would be safe to assume that unreported samples were also unbalanced. It could be argued that the findings from unspecified or unbalanced samples should not be generalized to include women, but the use of inclusive language does just that.
Conclusions and Recommendations

Overall, there has been a slight decrease in androcentric bias in the EAQ in the 80's and early 90's. There were notable changes in some areas but minimal changes in others. Those areas that have improved were those which were most visible - the use of inclusive language or gender of authors. Areas of bias not so evident, such as research theories, instruments and frameworks, appear to change more slowly.

On the basis of our findings, we would suggest the following recommendations for reducing androcentric bias.

1. Women should be encouraged to engage in research and should be supported in reporting their research as they are the most ones likely to build up the body of literature that reflects women's experience in educational administration. Women should also continue to be included on the editorial boards of administrative journals.

2. Current theories and frameworks need to be examined for androcentric bias and such biases should be brought to the attention of the educational administration community.

3. Complete gender make-up of the samples should be included in all published articles.

4. Instruments or at least partial instruments should be included with every empirical research report. This would allow readers to determine whether or not male bias was present in its construction. While it is recognized that editors are reluctant to publish lengthy instruments because of space constraints, at least partial instrumentation is necessary if one is to detect potential bias.

5. Theories should be tested on both genders and all instruments should be validated for both men and women.

6. In areas where women are under-represented, a balanced sample should be used to include women's reality.

7. Data analysis should indicate whether the results were generalized to women as well as men. The conclusions and findings should clearly indicate the gender implications.
8. In a postmodern world we need to encourage studies that deal with the exceptional rather than the norm. In particular, as we restructure we need to see how different genders deal with change.

Hopefully the succeeding decades will show improvement in the degree of androcentric bias. Bias in educational administration matters because it may prevent women from undertaking administrative positions. If the postmodernists are correct, and we are experiencing a paradigm shift in the social sciences as they are in the natural sciences, then the kind of leadership required for a postmodern world will be considerably different. Wheatley (1992), for one, points to new ways of thinking about leadership in organizations. Our hope is that future research and practice will reflect those changes.
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TABLE 1

Gender of authors published in the EAQ in the 1980's and early 1990's compared to the 1970's

<table>
<thead>
<tr>
<th>Gender of Authors</th>
<th>From 1990 to 1994</th>
<th>From 1980 to 1990</th>
<th>From 1970 to 1980</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Female (alone)</td>
<td>12</td>
<td>16.7</td>
<td>13</td>
</tr>
<tr>
<td>Female co-authors</td>
<td>2</td>
<td>2.8</td>
<td>3</td>
</tr>
<tr>
<td>Mixed gender</td>
<td>21</td>
<td>29.2</td>
<td>36</td>
</tr>
<tr>
<td>Total Female*</td>
<td>35</td>
<td>48.6</td>
<td>52</td>
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<tr>
<td>Male (alone)</td>
<td>20</td>
<td>27.8</td>
<td>87</td>
</tr>
<tr>
<td>Male co-authors</td>
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<td>41</td>
</tr>
<tr>
<td>Total Male**</td>
<td>37</td>
<td>51.4</td>
<td>164</td>
</tr>
</tbody>
</table>

* Includes all articles which were authored wholly or partially by females.
** Includes all articles which were authored wholly or partially by males.
TABLE 2 Summary of the change in Androcentric Bias in EAO
Between the 1970's and 1980's and 1990-94

<table>
<thead>
<tr>
<th>Characteristic of Bias</th>
<th>1970's</th>
<th>1980's</th>
<th>1990-94</th>
<th>Change**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender of the author(s)</td>
<td>8.0% female</td>
<td>28.9% female</td>
<td>29.2%</td>
<td>Positive</td>
</tr>
<tr>
<td>Exclusive language</td>
<td>62.9%</td>
<td>6.7%</td>
<td>Nil</td>
<td>Positive</td>
</tr>
<tr>
<td>Gender considered in problem formulation</td>
<td>10.0%</td>
<td>13.3%</td>
<td>14.9%</td>
<td>Marginally positive</td>
</tr>
<tr>
<td>Citations of female experiences in literature reviews</td>
<td>Not documented</td>
<td>14.0%</td>
<td>14.9%</td>
<td>Probably+</td>
</tr>
<tr>
<td>Gender bias critiqued when citing literature</td>
<td>None</td>
<td>1.0%</td>
<td>None</td>
<td>Marginal+</td>
</tr>
<tr>
<td>Documentation of gender of samples</td>
<td>22.2%</td>
<td>41.3%</td>
<td>23.5%</td>
<td>Marginal+</td>
</tr>
<tr>
<td>*Balanced gender of reported samples</td>
<td>50.0%</td>
<td>38.7%</td>
<td>89.3%</td>
<td>Positive</td>
</tr>
<tr>
<td>Justification/explanation for sample imbalance</td>
<td>30.0%</td>
<td>57.0%</td>
<td>--.--</td>
<td>Positive</td>
</tr>
<tr>
<td>Gender of the interviewer and interviewee reported</td>
<td>None</td>
<td>21.3%</td>
<td>10.7%</td>
<td>Positive</td>
</tr>
<tr>
<td>Generalizability to male and female populations assumed</td>
<td>52.2%</td>
<td>66.6%</td>
<td>69.0%</td>
<td>No improvement</td>
</tr>
<tr>
<td>*Generalizability based on balanced samples</td>
<td>13.0%</td>
<td>22.0%</td>
<td>15.0%</td>
<td>Marginal +</td>
</tr>
<tr>
<td>Explanations for gender differences</td>
<td>2.2%</td>
<td>18.6%</td>
<td>10.7%</td>
<td>Positive</td>
</tr>
</tbody>
</table>

*Categories used here are based on Shakeshaft and Hanson’s original 14. Those marked with an * were not among the originals but evolved as important indicators in this study. One original category, Focus of Articles, is not included on this chart because it did not indicate androcentric bias and Gender Groups and problem formulation was combined with Gender as the Basis for problem formulation. Instrument or survey bias was not included because results were inconclusive.