This paper explores the common elements identified as context variables that may effect student evaluation of instruction, and presents literature from sociology, anthropology, and linguistics that offers renewed challenges to researchers in this area of data interpretation. The common context variables that are seen as effecting student evaluation of instruction are as follows: (1) course variables, such as required/elective, day or evening, course level, lecture versus discussion, and others; (2) instructor variables, such as rank, gender, full-time versus part-time, years teaching, individual rapport, and personality characteristics; (3) student variables, such as academic major versus minor, full-time versus part-time, gender, personality characteristics, and others; (4) administration variables, such as student anonymity, direction giving, timing of semester evaluations, etc.; and (5) instrument variables, such as placement of items, number of response alternatives, negative wording of items, and the labeling of all scale points versus labeling only end points. The paper examines teaching effectiveness through the communication style used by the instructor, as well as the biased expectations that can be held by instructors of their students' intellectual performance. Conversely, student bias towards teachers is discussed within the contexts of gender and sociocultural stereotyping. Contains 46 references. (GLR)
INTERPRETATION OF STUDENT DATA:
CONTEXTUAL VARIABLES AND CULTURAL IMPLICATIONS

by

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A contributed research paper presented at the meeting of
the National Conference of Professors of Educational
Administration, Los Angeles, Ca., August, 1990.
Speech communication theories share a similarity with the interpretation of student evaluation of instruction contextual variables. The field of speech communication has identified two types of theories: a general theory of human communication and style specific theory (Baker, 1984; Bormann, 1980). The general theory of human communication is a set of generalizations about communication that hold regardless of any specific context. The style specific theory is based on the assumption that communication styles may differ: among specific groups of people, common language usage reflects cultural values, different verbal and nonverbal communication norms, stereotyping and prejudice.

The similarity of research is found with interpretation of student evaluation of instruction when the question is asked, "Can generalizations about teaching effectiveness as evaluated by student ratings of instruction hold regardless of any specific context"
variable?" Meta-analysis, a quantitative method used to convert individual study outcomes to a common denominator, has attempted to determine what context variables may effect student ratings of teacher effectiveness characteristics.

The presentation today will explore the common elements identified as context variables that may effect student evaluation of instruction and present literature from sociology, anthropology, and linguistics, that seeks renewed challenges to researchers in this area. These I have called the sociocultural context variables which are: gender, race, ethnicity, and social class variables. The Sociocultural context variables will be discussed in terms of stereotyping and prejudice found with non-dominant groups.

According to Braskamp, Brandenburg & Ory (1984) students are viewed as appropriate sources of describing and judging, such as: 1. student-instructor relationships, 2. their views of the instructor's professional and ethical behavior, 3. their workload, 4. what they have learned in the course, 5. fairness of grading, and 6. the instructors'
ability to communicate clearly. Dimensions of commonality (Brandenburg, Derry & Hengstler, 1978; Centra, 1980; Doyle, 1983; Mckeachie, 1979) in questionnaire items have identified the following areas: communication skill, rapport with students, course organization, student self-rated accomplishments, course difficulty, and grading and examinations.

Context variables identified with affecting student evaluation of instruction are numerous and somewhat inconsistent. Discrepancy in conclusions according to Abrami, Cohen & d'Apollonia (1988) are partly attributable to methodology and interpretation discrepancies. The use of meta-analysis versus the traditional narrative review, has discrepancies in the interpretation by reviewers of collective findings.

Common context variables as identified in the literature (Brady, 1989; Braskamp, et al, 1984; Cranton & Smith, 1986; Hoffman, 1978; Marsh, 1980, 1984; Marsh, Overall & Kesler, 1979) encompass the following broad dimensions: (See Table 1)
course variables, such as, required/elective, day or evening, course level, lecture v discussion, learning value, organization, exams/grades, assignments, workload difficulty, class size, and academic discipline;

instructor variables, such as, rank, gender, full-time v. part-time, individual rapport, years teaching, and personality characteristics (i.e., warmth, enthusiasm);

student variables, such as, full-time v. part-time, expected grade, prior interest, academic major v. minor, grade point average, group interaction, gender, and personality characteristics;

administration variables, such as, student anonymity, direction giving, instructor remains in classroom, when in semester evaluations are given, etc.; and,

instrument variables, such as, placement of items, number of response alternatives, negative wording of items, and the labeling of all scale points versus labeling only end points.
Cashin (1988) has stated that the multidimensionality of factors when discussed in terms of reliability (consistency, stability and generalizability) concluded that no single rating item or set of related items can be useful for all purposes.

Now we will explore the communicator aspect. According to Norton (1977) teaching effectiveness is a function of ones' perceived communicator style. Communicator style is the way one verbally and paraverbally interacts to signal how literal meaning should be taken, interpreted, or understood: dominant, dramatic, animated, open, contentious, relaxed, friendly, attentive, impression leaving, or precise.

Babad, Bernieri, and Rosenthal (1989) found that students' social class and ethnicity serve as major variables in the formation of teachers' expectations for students' intellectual performance. Highly biased teachers are those susceptible to stereotypically biasing information manifesting a strong self-fulfilling prophecy. In their study, biased teachers showed a highly differential pattern towards either the Pygmalion effect, which is
positive treatment of high expectancy students, or the Golom effect, which is negative treatment of low expectancy students. Bias towards teachers has also been found.

**Gender Stereotyping**

Student bias regarding female faculty has been found to affect student evaluations of instruction (Basow & Distenfeld, 1985; Basow & Howe, 1987; Bennett, 1982; Harris, 1976; Kaschak, 1978, 1981). Researchers have found that depending on the methodology, the sex-typing of the field discussed, the sex-typed characteristics of the instructors, and the types of questions asked, female professors sometimes receive lower ratings than male professors, especially from male students.

Martin (1984) felt that students have ambivalent expectations of female faculty. Women are supposed to be warm, friendly, supportive, and deferential, yet professionals are supposed to be objective, authoritarian, and critical. She believed that female faculty have to walk a fine line between feminine warmth and masculine
professionalism: straying on either side might result in lower ratings.

Bennett (1982) found that women are more negatively evaluated than men if they fail to meet gender-appropriate expectations with regard to student contact and support. Among the personal characteristics associated with high ratings for female but not male instructors were confidence and decisiveness. It seemed to Martin (1984) that female faculty must try harder than their male colleagues to convince students that they are both well prepared and likeable. Similarly, Bennett's data (1982) revealed students are less tolerant of female instructors in a number of respects, expecting more of them than their male colleagues in both educational and interpersonal aspects of teaching.

Wheeless & Potori (1989), and Schein (1975) postulated that sex role congruency hypothesis advocates behavior that is consistent with sex role stereotypes produces more positive outcomes than behavior that is inconsistent. Hence, when men and women communicate and behave in ways congruent with societal definitions of dominant/masculine and expressive/feminine behaviors,
positive outcomes will occur. Masculine qualities of teaching effectiveness are decisiveness and deliberateness (Kearney & McCroskey, 1980) and the maintaining of control (Deshpande, Webb & Marks, 1970). Feminine qualities of teaching effectiveness are immediacy (Andersen, 1979) non-dominant behavior (Norton, 1977), and caring and understanding (Rubin, 1981).

A highly structured instructional approach as described by students as communicating greater professionalism was found to be consistently more important for females' performance ratings than for males (Bennett, 1982). This was especially true for students' ratings of instructors' organization, clarity and coherence in classroom presentation, command of material for classroom presentation, and overall evaluation. Bennett (1982) found that students are clearly more tolerant of what they perceive as a lack of formal professionalism in the conduct of teaching from male professors, demanding of women a higher standard of formal preparation and organization. Research (Harris, 1976) on sex-role stereotyping has suggested that both males and females
tend to perceive male stereotyped behaviors as superior to and healthier than female-stereotyped behaviors.

Sufficient research and documentation (Baird & Bradley, 1979; Kaín, 1984; Kotthoff, 1984; Shakeshaft, 1987) has defined perceived differences and behavioral differences pertaining to gender patterns of communication. This documentation show that two distinct language patterns exist, one for women and one for men. (See Tables 2 and 3) Examples of these distinct language patterns are:

Female Patterns
- Correct speech forms
- Dynamic intonations, wide range of pitch
- Polite, cheerful intonation
- Use of expressive intensifiers
- Use of questions to express opinions

Male Patterns
- More frequent use of joking
- Hostile verbs
- Interruptions in conversation with females
- Greater amount of talking
- Lower pitch levels
In two studies by Papalewis & Brown (1989, 1990) of 35 faculty (17 male and 18 female), with 729 students (240 male and 499 female), across 30 different graduate and undergraduate classes in Education, the following results (see Table 4) were found: In terms of communication patterns used by university faculty, as predicted from the literature, significant differences were found between female and male faculty, such that,

Females, more than males, were rated significantly higher on items regarding:

- used personal examples in elaborating course content,

- were emotionally involved at times with course topics

- used a wide range of rate and pitch when speaking

- pointed out content areas of personal uncertainty

In terms of student evaluation of instruction, significant differences were found between male and female faculty, such that:

Males, more than females, were rated significantly higher on items regarding:

- course clarity,

- stating objectives, and
Females, more than males, were rated significantly higher on items regarding:

*enthusiasm, and

*interest.

In terms of relationships between gender communication patterns and student evaluation of instruction, small to moderate positive correlations were found between:

*the use of personal examples and all evaluation items,

*emotional involvement and items reflecting enthusiasm and interest, and

*the use of wide range of rate and pitch, when speaking with items concerning enthusiasm and interest.

An inverse relationship was found between the pointing out of areas of personal uncertainty and items regarding course clarity, stating of objectives, and organization.

Papalewis and Brown (1989, 1990) concluded that students do notice gender communication pattern differences and such differences are related to specific evaluation items.
Sociocultural Stereotyping

As was found with gender, intercultural factors affecting interaction and outcomes of conversation based on cultural differences requires focused research attention. Differences in socialization not only affect how others perceive and behave, but also how one's own perception and behavior may contribute to others' perception and behavior.

Schnell (1987) defined communication as the transmission of information, ideas, attitudes, or emotions from one person to another, by conveying those ideas through written or spoken symbols or other verbal or nonverbal signs. Perceptions, Schnell (1987) stated, are information based on inputs from our senses and interpretation of this data on past and present experiences. Hence, verbal and nonverbal symbols influence interracial, interpersonal, and intercultural communication in negative and positive ways. Some of the negative effects include
racist language and excluding behavior. Prejudice often exemplifies itself within these negative effects.

As cited by Booth-Butterfield & Jordan (1989) other researchers have identified these race differences: African Americans and whites differed in: how they reduced uncertainty in initial interactions; the question asking pattern and talk time varied by race and gender; African American communicators appear to use eye contact differently than do white communicators; African American communicators exhibit more assertive behavior; and, African American communicators displayed a heightened emotional expressiveness. Hence, African American communicator style is characterized as more outgoing, assertive, and expressive than white communicator style.

Foeman and Pressley (1987) found that African Americans tend to confront individuals immediately when dealing with conflict. As cited by Foeman and Pressley (1987), Royce (1982) stated that an African American must fairly consistently deal with stereotypes of African Americans, and whites, though they tend to think of each other as individuals, think of blacks in more sweeping terms.
Booth-Butterfield and Jordan (1989) stated that in order to elicit favorable evaluations, African American communicators often find they need to emulate white communication style in educational settings. Citing Rubins' study (1986), African American communication effectiveness suggested that adaptation to predominantly white standards must occur for African Americans to be perceived as effective communicators in racially heterogeneous classrooms.

Even less cross-cultural research has been done with Hispanics, Native Americans, and Asian Americans. One study done by Meredith (1988) found that Japanese Americans and female students preferred a more "female" style of teaching, where the teacher exhibited openness, warmth, respect, and accessibility.

Acknowledging the complexity of contextual variables, and the implications of sociocultural variables, should lead us in the direction of future research. The sociocultural variables present another dimension required to accurately assess student evaluation of instruction. The macro approach of generalizability of findings in this research
area, needs to be balanced with a micro approach: until stereotypic dimensions inherent in human behavior are explored, we will continue to have research reflect the dominant culture.

Implications

As stated by Baker (1984) to avoid the trappings of ethnocentric bias, researchers must begin to focus on cultural values, different verbal and nonverbal communication norms, and stereotyping. Implications for future research are: (1) Teacher evaluation instruments in practice should be analyzed for gender and race differences in communication patterns; (2) General university-wide norms or even faculty-wide norms in a particular college/school or multi-program department, should not be established; (3) Possibly, the most useful evaluation system will include common contextual variable norms, and; (4) More research is needed in sociocultural contexts to ensure student evaluation of instruction instruments are not stereotypic biased.
TABLE 1  DIMENSIONS OF CONTEXT VARIABLES

COURSE VARIABLES
Required/elective, Day or evening, Course level, Lecture v discussion, Learning value, Organization, Exams/grades, Assignments, Workload difficulty, Class size, and Academic discipline

INSTRUCTOR VARIABLES
Rank, Gender, Full-time v. part-time, Individual rapport, Years teaching, and Personality characteristics (i.e., warmth, enthusiasm)

STUDENT VARIABLES
Full-time v. part-time, Expected grade, Prior interest, Academic major v. minor, Grade point average, Group interaction, Gender, and Personality characteristics

ADMINISTRATION VARIABLES
Student anonymity, Direction giving, Instructor remains in classroom, When in semester evaluations are given, etc.

INSTRUMENT VARIABLES
Placement of items, Number of response alternatives, Negative wording of items, and the Labeling of all scale points versus labeling only end points.
### TABLE 2  GENDER PATTERNS OF COMMUNICATION

**Male Patterns**

<table>
<thead>
<tr>
<th>Male Patterns</th>
<th>[ \text{Shakeshaft, 1987,}]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>More frequent use of joking</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Aggressive Speech</strong></td>
<td>[ \text{Scott, 1979}]</td>
</tr>
<tr>
<td><strong>Interruptions in conversations with females</strong></td>
<td>[ \text{Scott, 1979}]</td>
</tr>
<tr>
<td><strong>Greater amounts of talking</strong></td>
<td>[ \text{Scott, 1979}]</td>
</tr>
<tr>
<td><strong>Lower pitch levels</strong></td>
<td>[ \text{Scott, 1979}]</td>
</tr>
<tr>
<td><strong>Demanding voice</strong></td>
<td>[ \text{Deep voice}]</td>
</tr>
<tr>
<td><strong>Deep voice</strong></td>
<td>[ \text{Boastful speech}]</td>
</tr>
<tr>
<td><strong>Quantifying modifiers</strong></td>
<td>[ \text{Use swear words}]</td>
</tr>
<tr>
<td><strong>Dominating speech</strong></td>
<td>[ \text{Loud speech}]</td>
</tr>
<tr>
<td><strong>Show anger</strong></td>
<td>[ \text{Straight to the point}]</td>
</tr>
<tr>
<td><strong>Militant speech</strong></td>
<td>[ \text{Hostile verbs}]</td>
</tr>
<tr>
<td><strong>Use slang</strong></td>
<td>[ \text{Authoritarian speech}]</td>
</tr>
<tr>
<td><strong>Forceful speech</strong></td>
<td>[ \text{Lean back while talking}]</td>
</tr>
<tr>
<td><strong>Aggressive speech</strong></td>
<td>[ \text{Blunt speech}]</td>
</tr>
<tr>
<td><strong>Interrupt women</strong></td>
<td>[ \text{Humor in speech}]</td>
</tr>
<tr>
<td><strong>Passive voice</strong></td>
<td>[ \text{Prefers impersonal} ]</td>
</tr>
<tr>
<td><strong>Prefers impersonal</strong></td>
<td>[ \text{Generalizes, 3rd person}]</td>
</tr>
<tr>
<td><strong>Evidence of fact rather than feeling</strong></td>
<td>[ \text{Scott, 1979;}]</td>
</tr>
<tr>
<td></td>
<td>[ \text{Shakeshaft, 1987}]</td>
</tr>
<tr>
<td>GENDER PATTERNS OF COMMUNICATION</td>
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</tbody>
</table>

### Female Patterns

**Correct speech forms**  
*Scott, 1979*

- Enunciate clearly
- High pitch
- Use hands and face to express ideas

**Dynamic intonations,**  
*Shakeshaft, 1987*

- Concern for listener
- Gentle speech
- Fast speech

**Polite, cheerful intonation**  
*Scott, 1979*

- Emotional speech
- Use many details
- Smooth speech

**Use of expressive intensifiers**  
*Scott, 1979; Lakoff, 1975;*  

- Open, self-revealing speech
- Enthusiastic speech

**Use of questions to express opinions**  
*Lakoff, 1975; Shakeshaft, 1987*

- Smile a lot when talking
- Good grammar
- Polite speech
- Question intonation
- Tag questions
- Use of qualifiers
- Superlatives, diminutives

*Scott, 1979; Shakeshaft, 1987*
TABLE 4  COMMUNICATION PATTERNS AND STUDENT EVALUATION OF INSTRUCTION

Communication Pattern Differences

*Females*, more than males, were rated significantly higher on items regarding:

- Used personal examples in elaborating course content,
- Were emotionally involved at times with course topics
- Used a wide range of rate and pitch when speaking
- Pointed out content areas of personal uncertainty

Student Evaluation Of Instruction Differences

*Males*, more than females, were rated significantly higher on items regarding:

- Course clarity,
- Stating objectives, and
- Organization

*Females*, more than males, were rated significantly higher on items regarding:

- Enthusiasm, and
- Interest.

Relationship Between Gender Communication Patterns And Student Evaluation Of Instruction small to moderate positive correlations were found between:

- The use of personal examples and all evaluation items,
- Emotional involvement and items reflecting enthusiasm and interest, and
- The use of wide range of rate and pitch, when speaking with items concerning enthusiasm and interest.
<table>
<thead>
<tr>
<th>Pattern</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confront individuals immediately</td>
<td>Foeman &amp; Pressley, 1987</td>
</tr>
<tr>
<td>Tentative</td>
<td>Booth-Butterfield &amp; Jordan, 1989</td>
</tr>
<tr>
<td>Use Eye Contact</td>
<td>Aiello &amp; Jones, 1970; Erikson, 1979; LaFrance &amp; Mayo, 1976</td>
</tr>
<tr>
<td>High Emotional Expressiveness</td>
<td>Foeman &amp; Pressley, 1987; Gumperz &amp; Tannen, 1979</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>Foeman &amp; Pressley, 1987</td>
</tr>
</tbody>
</table>
References


Cashin, W. E. (1988). *Student ratings of teaching: A summary of the research*. Center for Faculty Evaluation and Development Kansas State University, Manhattan, KS.


Kaschak, E. (1981). Another look at sex bias in students' evaluations of professors: Do winners get the recognition that they have been given? *Psychology of Women Quarterly, 5*(5), 767-772.


