

## **Refereed Articles**

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# ***The Chilly Classroom Climate Revisited: What Have We Learned, Are Male Faculty The Culprits?***

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### **Abstract**

Roberta M. Hall and Bernice R. Sandler popularized the term “chilly climate” in their 1982 report, *The Classroom Climate: A Chilly One for Women?* They concluded that the higher education classroom environment was not only less hospitable for women than for men, but that women’s development was actually stifled. Hall and Sandler pointed to the male academic instructor as the primary culprit. This article examines additional research related to women in the higher educational classroom. It looks at other factors that may have a far greater “chilling effect” than the gender of the instructor.

### **Introduction**

The nation and the higher education community have been engaged for the last decade in vigorous discussions about quality in education and the assessment of quality. The university classroom is the center of the educational experience for students and faculty. A number of highly visible publications have expressed concern about how faculty members’ actions, particularly those of male faculty members, affect the quality of women’s education in colleges and universities. This article will focus on research accomplished over the last twenty-five years in an attempt to discover if the male-instructor, college classroom environment is the single major factor that promotes what has been termed a “chilly classroom” for women. It is important that our college and university classrooms promote an educational environment for all and not act as an obstacle to the learning process.

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### Past Research

In 1982, with support from the Fund for the Improvement of Postsecondary Education, the Project on the Status and Education of Women (PSEW) published *The Classroom Climate: A Chilly One for Women?* (Hall & Sandler, 1982). It was the first national report on differential treatment of men and women students in the college classroom. The conclusions of this report, which identified over 35 kinds of behaviors by which faculty may treat men and women students differently and included over 100 recommendations, can be summed up as follows:

Most faculty want to treat all students fairly and as individuals with particular talents and abilities. However, some faculty may *overtly*—or, more often, *inadvertently*—treat men and women students differently in the classroom and in related learning situations. Subtle biases in the way teachers behave toward students may seem so “normal” that the particular behaviors which express them often go unnoticed. Nevertheless, these patterns by which women students are either *singled out* or *ignored* because of their sex, [sic] may leave women students feeling less *confident* than their male classmates about their abilities and their place in the college community. (Hall & Sandler, 1982, p. 2)

In 1994 Foster and Foster concluded that college students at their Midwestern university reported a number of chilling practices, with women reporting more than men. These findings were consistent with Hall and Sandler’s (1982) hypothesis that women are subjected to more of these practices than men. “Women view the chilling behaviors as important. That clearly supports Hall and Sandler’s hypothesis that *chilling* practices, particularly in concert, make women feel less confident and able on a college campus” (Foster & Foster, 1994, p. 22).

The results of these two, as well as other studies on college environments for women (Boyer, 1987; Holland & Eisenhart, 1990; Pearson, Shavlik, & Touchton, 1989; Smith, 1990; Smith, Wolf, & Morrison, 1995; Whitt, 1994; Yeager, 1995) suggest that the climates of a large number of coeducational postsecondary institutions may not be conducive to, or supportive of, women students’ learning. “Many obstacles to women’s leadership development can be found in the higher education environments they encounter” (Whitt, 1994, p. 199). In their summary of the research, Smith et al. (1995) indicate that women’s experiences at coedu-

educational institutions are not always equal to the experiences of their male counterparts. "Women are often treated as 'outside the norm' and as 'second-class citizens' on coeducational college and university campuses" (Pearson et al., 1989, p. 5). Holland and Eisenhart (1990) discovered that peer culture within coeducational environments emphasizes the value of romantic relationships for women while emphasizing the value of academics, athletics, and other achievements for men.

The environment of the academic classroom appears to be much more favorable for women at women's colleges as opposed to coeducational institutions. Astin (1993) reports that women at women's colleges were more likely to persist to graduation and enhance their leadership and academic skills. Smith et al. (1995) have the following to say:

Though our findings on the direct effect of women's colleges are relatively consistent with other studies, we did not find the same magnitude of differences as discovered by Astin (1993). Like Astin, however, we were able to confirm that attendance at a women's college is a direct predictor of several variables—the most important of which is academic involvement. (p. 263)

In contrast to the obstacles women students may encounter in coeducational institutions, examples of encouraging environments for women's leadership development can be found in all-female settings (Whitt, 1994). After controlling for background characteristics, Smith (1990) found that women's colleges relate positively to a variety of measures of student satisfaction, perceived changes in skills and abilities, and educational aspirations and educational attainment. Krupnick (1985) provides further evidence for this, citing "more than a dozen studies that have provided evidence of women's lower self-esteem in coeducational colleges than in single-sex institutions" (p. 20).

### **The Silence of Women in Class**

Of particular interest is women's "voice" or, rather, their lack of voice in the classroom. Most faculty value class participation, and a large body of research confirms that it is valuable for many reasons, not the least of which is increased learning (Johnson, Johnson, & Smith, 1991). Hall and Sandler (1992) conclude that women's participation in the classroom more so than men's may be affected by teacher behavior. Many teachers say that they call only on students who raise their hands in order

not to embarrass or cause discomfort to other students. This approach, however, may seriously disadvantage “silent” students (Hall & Sandler, 1982). Boyer (1987) described this chilly classroom climate in his massive survey of American undergraduates:

We were especially struck by the subtle yet significant differences in the way men and women participated in class. . . . In many classrooms, women are overshadowed. Even the brightest women often remain silent . . . Not only do men talk more, but what they say often carries more weight. (p. 150)

The question remains: Why do many women not speak out in class? Many women have been socialized to be silent, especially in formal, mixed groups. In the classroom women must “become gentlemen” (Aleman, 1998) in order to be recognized and rewarded by faculty. They must engage in combative argumentation, assert their opinions, and challenge faculty and peers. To be valued performers in the college classroom, women are asked to employ a set of gender behaviors typically at odds with their socialization as girls and as women (Aleman, 1998).

Some women also may feel angry or alienated, particularly in a classroom where their participation is not welcome; their silence may indicate a reflection of the teacher (Hall & Sandler, 1982). Students who speak frequently in class, many of whom are men, assume it is their job to think of contributions and try to get the floor to express themselves. “But many women monitor their participation not only to get the floor *but also to avoid getting it*, . . . thinking the big talkers selfish and hoggish” (Tannen, 1992, p. 200). Hall and Sandler (1982) conclude that our socialization process has set the stage for speech in class. In conversation we expect men to analyze, explain, clarify, and control the topic and flow. In contrast, we expect women to reinforce and maintain the conversation, reduce tensions, and restore unity. Sadker and Sadker (1994) agree that this pattern of classroom speech for women is a socialization issue and that its origin is back in elementary school. “Women’s silence is loudest at college. In our research we found that men are twice as likely to monopolize class discussions, and women are twice as likely to be silent” (Sadker & Sadker, 1994, p. 170).

Hall and Sandler (1982) point out numerous ways that faculty communicate a lower expectation for women in the classroom. Asking women students easier questions, making seemingly helpful comments, and doubting women’s work and accomplishments are but a few examples. The

behaviors themselves are small and, individually, would be of little consequence. However, these behaviors happen often enough to give women and men a message that women are not expected to participate actively in the classroom and that their contributions are not valued, a message that may ultimately lower women's self-confidence and intellectual and vocational ambitions (Hall & Sandler, 1982). There also seem to be vocal patterns other than silence for women in the classroom. Not only do male faculty and students interrupt women more often than males are interrupted (Zimmerman & West, 1975), but women are interrupted primarily by other women (Krupnick, 1985). However, in a review of the literature on interruptions, James and Clarke (1993) report that in the majority of studies no significant sex differences were found (Aries, 1998).

Older women students may be particularly vulnerable to being treated as troublemakers for asking extensive questions because older women do not conform to the stereotype of the passive female learner, namely, that they should be quiet and unassuming (Hall & Sandler, 1982). Again, the stereotype of the older woman's motivation to attend college can act as a barrier to her in the classroom. She is viewed as a bored, middle-aged woman who is returning to school because she has nothing better to do (Hall & Sandler, 1984).

Until recently females have been measured against the behavioral norms and social timing deemed appropriate for males. Tidball (1976) suggests, "Women's development is different from that of men, and their cognitive, moral, and social-emotional development must be considered in their own right" (p. 101). There is a growing body of literature that views the silence or classroom participation patterns of women as not related to the chilly climate at all, but rather as a different pattern of development. Aleman (1998) makes the point that women's speech to other female friends is marked by trust, caring, feelings of equality, and mutual respect; fearing that they will be viewed negatively by the other members of the class (both male and female), women tend to silence themselves because they do not gauge their classmates to have the same qualities as their female friends.

Often referred to as the "new scholarship on women," this new body of literature identifies a divergence for women from the male models (Neff & Harwood, 1990). Josselson (1987) describes a different way that women develop self-identity. Gilligan (1982) identifies a different voice reflected in women's moral choices. Belenky, Clinchy, Goldberger, and Tarule (as cited in Pearson, 1992, p. 3) support the idea that women learn more in a collaborative mode rather than in the competitive mode

found mostly in males. Belenky et al. found that women had a preference for “connected knowing” as contrasted with the “separate knowing” that is fostered in formal, higher education environments. Pearson (1992) concludes that women who evidence the typical female profile as learners are disadvantaged in traditional educational settings (which reward learning preferences more typical of males) and traditional male professions. What is happening in the evolution of human development theory is that women researchers are looking at the developmental tasks of women—moral, cognitive, and emotional—from a female vantage point and drawing conclusions that are very different from those of their male contemporaries.

### Some Other Points of View

The Hall and Sandler (1982) report is not without its critics. Heller, Puff, and Mills (1985) state, “Hall and Sandler (1982) conducted a literature survey of sex differences in behavior in order to suggest possibilities for investigation and general consciousness raising; they did not collect any data to test their hypothesized differences” (p. 447). Crawford and MacLeod (1990) agree and note, in reference to the Hall and Sandler (1982) report, that “it is important to gather evidence systematically rather than rely on anecdotes” (p. 103). Constantinople, Cornelius, and Gray (1988) make the same point:

Hall cites a wide array of evidence in behalf of her assertions concerning the prevalence and effects of sexism in college classrooms. However, because there is so little empirical data available, most of the support for her thesis is drawn from studies of related behaviors (for example, sex differences in verbal and nonverbal communication in everyday settings) and from anecdotal evidence offered by persons surveyed at particular campuses across the country. The overt forms of sexism described by some students in their responses to this survey clearly have no place on a college campus, but one can question the adequacy of the evidence as it pertains to the more subtle forms of discrimination implied by the argument. (p. 528)

Sternglanz and Lyberger-Ficek (1977) recorded instructor behaviors and found no evidence of differential responding to male and female students, leading them to conclude, “Our results indicate a consistent pattern of sex differences in student behavior in the college classroom

with no detectable encouragement of this pattern by the teachers” (p. 350). A study of videotaped classes at Harvard reached similar conclusions (Krupnick, 1985). Boersma, Gay, Jones, Morrison, and Resnick (1985), using a similar observational procedure to study the effects of instructor sex and student sex in fifty classes at a large western university, found essentially no differences between male and female students in the numbers and types of interactions in which they engaged. Brooks (1982), in a study of graduate social work classes, found no differences in participation rates overall. The study conducted by Constantinople et al. (1988), using a chi-square test, concludes:

In none of our analyses do we find evidence of sex of instructor by sex of student interaction effect of the sort that one would expect if Hall’s argument concerning the role of faculty members, particularly male ones, in discriminating against women students were true. Although our data lend some support to Hall’s assertion that male students are more active in the classroom than are females, the effects of student sex on classroom participation are by no means pervasive or robust. We cannot provide support for her argument. (pp. 547-548)

One word of caution must be raised in the comparison made with the Hall and Sandler (1982) conclusions: The statistical tool used by Constantinople et al. (1988) is one designed to look for correlation between two factors. It is not amenable to questions of cause and effect. Hall and Sandler’s (1982) argument is essentially causal: Men students participate more in college classrooms than women do because faculty members discriminate consistently against women in a variety of subtle ways.

The study conducted by Constantinople et al. (1988) found that the most robust and consistent correlation factor influencing both student and instructor behaviors, a factor that tends to override the sex of either, is the academic division of the curriculum in which a particular course exists. True to the stereotype, natural science classes tend more toward lecture, while arts classes tend more toward discussion; the social sciences show a more even distribution among lecture, discussion, and lecture-discussion formats. Krupnick (1985) draws a similar conclusion from her Harvard study and argues for the necessity of rethinking the purpose of class discussion, urging instructors to be more vigilant in inviting participation from students, most often female, who do not easily contribute to discussion.

As Constantinople et al. (1988) looked more closely at their results, they saw yet another positive correlation. "Stronger effects on student behaviors seem to come from sex of the instructor, with female instructors, on the whole, teaching classes in which there is more frequent student participation than do males" (p. 547). This finding is similar to the data collected by Kajander (1976) in her study of the effects of sex of instructor on student participation in freshman English classes. It is somewhat interesting that Foster and Foster (1994), whose findings were consistent with Hall and Sandler (1982), also went on to say:

The finding that there are significant differences between student views of whether male or female instructors are responsible for the practices across the colleges raises serious questions about whether the chilling effect produced in women is primarily due to male instructors. It is female instructors who have the edge in performing the chilling behaviors. (p. 22)

The Crawford and MacLeod (1990) study was carried out at a small liberal arts college of approximately 1600 students, 46% of whom are female, and at a large university ( $N = 1375$ ). They, too, observed that males participated more in class, but they concluded that this gender difference was not due to teachers' discrimination: "Class size is clearly the variable of most importance to student participation. Small classes enhance participation for all students regardless of gender" (Crawford & MacLeod, 1990, p. 120). They also note that female teachers were more likely to create a participatory climate for all students. Compared to their male colleagues, women faculty seem better at making all their students feel known and their participation valued. Female teachers are also more likely to have classes in which students frequently volunteer to participate. Male and female instructors may behave differently, with women somewhat more likely to engage their students in active participation and men somewhat more likely to engage in negative and offensive behavior; however, these teacher behaviors are not directed more at women than at men students, and they have similar effects for women and men (Crawford & MacLeod, 1990).

Hall and Sandler (1982, 1984) hypothesized that the "chilly climate" experienced by women in class reduces the self-confidence of women and, as a consequence, diminishes their academic and professional aspirations during and after college. Others (Astin, 1993; Holland & Eisenhart, 1990; Sadker & Sadker, 1994; Whitt, 1992) have postulated that ele-



ments of the “chilly climate” affect more than women’s aspirations and, in fact, inhibit intellectual and personal development during college. In a multi-institutional study Yeager, Terenzini, Pascarella, and Nova (1995) found that women students who perceived chilly campus climate had statistically significant higher educational aspirations than their counterparts who did not perceive a chilly climate. Additionally, these “perceivers” were more likely to have higher scores on academic and social integration than their “non-perceiving” peers (Yeager et al., 1995). After reviewing the existing literature, Pascarella et al. (1997) found no empirical evidence pertaining to the impact of a chilly climate on women’s intellectual development. The purpose of their study was to test the hypothesis that women’s perceptions of the presence of a chilly climate is linked significantly to their cognitive development. They looked at both the four-year and the two-year college environments, finding a greater related effect at the two-year colleges. Their overall conclusions relate to both environments:

Our view focuses on the fact that only a few significant negative relationships were found between a perceived chilly climate and women’s cognitive development, and the few significant negative relationships that were found were modest in magnitude. Thus, even if a chilly climate does exist, it may have only a small, trivial impact on women’s cognitive development in college. In short, the findings do not provide sufficient enough support for the negative effects of a chilly climate on women’s cognitive growth that they warrant changes in, or reformulation of, institutional policy. (pp. 122-123)

They continue:

The 2-year college sample of a perceived chilly climate had a significant negative association with a broadly based, standardized measure of cognitive development that included such dimensions as reading comprehension, mathematics and quantitative reasoning, and critical thinking. This suggests that institutional policy warrants a more activist role at the 2-year college. (p.123)

Heller et al. (1985) found no evidence that women were treated in any way as second-class students. On the contrary, some of their data suggest that women are treated as intellectually more capable than their male counterparts because the level of questions which they perceive

they are asked is appreciably higher than that perceived by males. The experience that women have during their years at their particular college serves to reduce differences that exist between women and men at matriculation.

Finally, the Hall and Sandler (1982) article may, paradoxically, perpetuate a completely inappropriate image of women college students as meek, unconfident, undereducated, and unchallenged. This characterization could be counterproductive and discriminatory for women in higher education. The women we surveyed (at Franklin and Marshall) certainly do not fit that image, and until the data are in from other institutions and populations, we are inclined toward a more positive and optimistic view of American college women. Our results suggest that overstatement and over-generalization may be a problem with current research in the area. (Heller et al., 1985, p. 459)

### Conclusion

Even though the qualitative observations of Hall and Sandler (1982, 1984) may be anecdotal, the sheer volume has substantial weight. However, it would appear that the cause of this chilly climate should not be borne as heavily on the shoulders of the male classroom instructors as Hall and Sandler (1982, 1984) would suggest. It would appear that other factors are much more significant in how women perceive their college classroom experiences. These factors appear to be type of institution, size of the class, classroom setting, male/female mix in the classroom, women's development, academic subject of the class, curriculum of the particular course, and teaching style of the instructor, just to name a few. It is clear that additional research is needed that will focus on the cause and effect relationships in the classroom. As a starting point, awareness of the situation of the female student in the higher education classroom is critical.

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