William A. Perry

Different Worlds in the Same Classroom: Students’ Evolution in Their Vision of Knowledge and Their Expectations of Teachers

I want to describe an orderly variety in the ways students in your classroom make sense—including their sense of what you should be doing to be a good teacher. We labor among our students’ individual differences daily, and yet the way these differences are categorized tends to mislabel the variables I have in mind. In the parlance of college pedagogy, the phrase “individual differences” usually refers to relatively stable characteristics of persons, such as academic ability, special talents or disabilities, or the more esoteric dispositions called “learning styles.” We are, of course, expected to accommodate all such differences in our teaching, perhaps by broadening our teaching styles, and you may anticipate that I am about to add to our burden.

My hope, rather, is to lighten our burden, or at least to enlighten it. The variations I wish to describe are less static; they have a logical order, and most students tend to advance from one to another in response to teachings or readings that impinge on the boundaries of their intelligible universe of the moment. These variables are therefore more fun to address, and in my opinion often more determinant of what goes out of our classrooms than all the other individual differences put together. At the very least, an understanding of them makes intelligible many of those aberrations of the pedagogical relation that we must otherwise ascribe to a student’s stupidity or, more generously, to a clash of “personalities.”

WILLIAM G. PERRY has taught in school and college, and, as the first Director of the Bureau of Study Counsel, has listened to students for thirty-four years. He is the author, with his associates, of Forms of Intellectual and Ethical Development in the College Years.
Women and Men in the Classroom: Inequality and Its Remedies

Few topics generate as much interest or disagreement as the nature of differences between women and men. In colleges, particularly, these differences are discussed with reference to the ways women and men communicate. Because teaching consultants at the Harvard-Danforth Video Lab are often asked about gender's influence on classroom interactions, I gathered a research team to see what we could discover. We wanted to know how gender affects the quality of teaching and learning at Harvard College. Specifically, we wanted answers to the following questions: What are the differences, if any, between male and female students' participation in classroom discussion? How does the gender of the teacher affect the students' participation? In other words, we wanted to devise an objective study of a controversial issue on which almost everyone has an opinion.

We spent a year reviewing videotapes volunteered by twenty-four instructors at the College: twelve women and twelve men—a group that included Teaching Fellows and faculty members. Their teaching experience ranged from eight weeks to thirty-six years. We concluded that male students talked much longer in the predominant classroom circumstance: i.e., the situation in which the instructor is male and the majority of the students are male. Of the six classes (one quarter of our sample) in which this was the situation, male students spoke two and a half times longer than their female peers (Wilcoxon, P=0.046). This finding is noteworthy, since the male teacher/predominantly male class situation is common not only at Harvard but also at most other coeducational colleges.

On the other hand, the presence of female instructors apparently had an inspiring effect on female students. They spoke almost three times longer under instructors of their own sex than when they were in classes led by male instructors (Kruskal-Wallis, P=0.025). This led us to speculate about the importance of same-sex role models, but the enormous diversity of personalities and behaviors in our sample made it impossible to derive firm conclusions on this question. The data suggest that a teacher's gender can play a role in classroom discussion, in the sense that it appears to influence the extent to which male students dominate classrooms. The advantages of classroom discussion, long considered to be an integral part of education in sections and tutorials, are unequally distributed between the sexes.

The finding that male students tend toward greater talkativeness than female students led us to question whether male instructors might be more talkative than female instructors. They are not. Both sexes talk about the same amount of time: that is, instructors occupied 42% of the class hour on average, speaking about 4500 words. Modes of verbal behavior that are allegedly gender-based, such as self-subordination (supposedly a female trait) or competitiveness (supposedly a male trait) depend less on an instructor's gender than on particular personalities and the number of years that instructors have taught. Contrary to popular notions, no speech characteristic we examined revealed itself to be typical of either gender.

The male tendency to dominate in some classes did not surprise us, since talkativeness studies in general have concluded that men dominate mixed discussion groups everywhere—both within the classroom and beyond. What did surprise us was the degree to which male domination appeared to depend on gender demographics: when the teacher was male and the students in a particular class were predominantly male, then male students dominated the discussions. In none of the demographic circumstances studied did women students talk as much as men.

Why don't women students talk as much as men? One explanation is that women prove to be extremely vulnerable to interruption. Numerous studies have demonstrated that in mixed-sex conversations, women are interrupted far more frequently than

Catherine G. Krupnick is Director of the Harvard-Danforth Center Video Lab and a Lecturer in Psychology and Social Relations at Harvard.
men are. This was remarkably visible in the Video Lab's sample: the comments of women students often were confined to "bursts" lasting only a few seconds, while male students typically kept on talking until they had finished. Moreover, once interrupted, women sometimes stayed out of the discussion for the remainder of the class hour. Thus there were considerably more one-time contributors among women than men.

Our discovery that women students are interrupted more frequently than their male counterparts differed from the results of other studies in one surprising respect: although other research has repeatedly shown that women's speech is most often cut off by men and/or "authority figures" (instructors, for example), our videotapes reveal that female students were interrupted almost exclusively by one another.

Close observation shows how this comes about. Like male students, female students often tend to cluster their talk in "runs." A run means that during a given period, the conversation is dominated by one gender or another. We found gender runs in about half of the Harvard classes that we observed. A gender run usually operates so that long periods of predominantly male talk are followed by short bursts of all-female talk, which is characterized by a relatively high proportion of overlapping comments. Over the course of a class hour the tendency of men to speak at length (and the lesser likelihood that they will be interrupted) leads, in the case of male-majority classes with male teachers, to a male-dominated hour—a phenomenon that is reinforced by the tendency of women to speak less frequently, more briefly, and to overlap one another's comments.

What we have, then, is a situation in which we find female students at the bottom of the conversational heap—some passive, others competing for the scarce resource of conversational space. This picture is scarcely news to social scientists. Erving Goffman, for instance, commenting on women professionals in hospital settings, concluded in 1961 that women did not say as much in male-dominated situations as men did. Rosabeth Kanter, studying women in corporate settings, also observed this, as did her collaborator, Elizabeth Aries, when writing about discussion groups she had studied at Harvard in 1972.

Aries noticed something else as well when observing single-sex groups: she found that groups composed entirely of women students tended to have a "rotating," participatory style in comparison with male groups. In other words, in these groups women took turns in an egalitarian way, and each spoke for more or less equal amounts of time throughout the class hour. Male groups appeared more contest-like, with extremely uneven amounts of talk per man. They competed by telling personal anecdotes or raising their voices. In dividing the hour unevenly, they established hierarchies of access to the discourse. All these characteristics remained stable over the course of several months. And what happened in mixed groups? Unsurprisingly, the male competitive style won out. Apparently, it's as hard for men to give up the habits of competition as it is for women to learn them.

The news in our investigation is that men and women behave differently as speakers, or that male and female students do, but that at Harvard male and female students do. It is sometimes thought that the admissions process evens out the differences, and every teacher can cite examples of extremely articulate female students. But since the general pattern conforms to power imbalances in the world beyond academia, it should be monitored carefully by those who care about providing equal education.

If instructors want to help women develop strong participatory skills, they need to be aware of the tendency of women to underparticipate when the classroom setting is primarily male. This is particularly important for instructors who teach sections and tutorials. The pedagogical need is clear. Active participation is generally thought to encourage learning. Both tutorials and sections have evolved out of the premise that engaging in discussion is an integral part of mastering the vocabulary and thought processes of a discipline. In an ideal world, students' gender would bear no relationship to their likelihood of participation. Women in a group would generally talk in proportion to their numbers in that group, and so would men. Every student would have equal access to the conversational floor and an equal opportunity to master a discipline. Small classes would be, in essence, short-term communities of shared learning. Why is this at odds with what happens in many classes?

So far we have isolated four factors which contribute to giving women students less access to discourse than men: their demographic status as members of a minority in the classroom; their inability or unwillingness to compete against men; their vulnerability to interruption; and the fact that men and women talk in runs, which tends to keep female participation low.
Other causes of inequality can be found in classroom teaching. At Harvard and elsewhere, instructors often confuse ends with means in their desire to produce "a good class." Forgetting that sections and tutorials have a different purpose than lectures, they feel justified in keeping the flow of discussion going by getting most of their contributions from the first students to volunteer. As a result, classroom discourse is biased toward assertive students who have the quickest response time. Participation becomes based on quick thinking instead of deep or representative thinking. Further, the best predictor of a student's making substantial contributions to a discussion is that student's level of participation earlier in the class session. By allowing conversational space to be monopolized early on by those who formulate the quickest responses, instructors aid in the creation of dominant and subordinate conversation groups. At Harvard, the dominant places in a discussion are ordinarily occupied by those males who are highly verbal, while the subordinate positions tend to be occupied by women and, as our videotapes showed, by other minorities of either sex.

Teachers often defend the practice of calling primarily or exclusively on volunteers by saying, "I don't want to put shy students on the spot." Empathetic as this sentiment sounds, it usually backfires. After a few predictable talkers have made most of the substantial contributions at the beginning of the class hour, other students become particularly hesitant to join the discussion. Segregation of participants and nonparticipants soon extends beyond individual class periods, and becomes a structural feature for the duration of the course. Most of the students are learning—as in lecture—by listening, while a small minority have the advantages of the teacher's attention: the questioning, correction, and praise that come better from being "on the spot." Students at the bottom of the conversational heap frequently prepare less thoroughly for class, and listen only half-heartedly. Thus they disqualify themselves further as serious conversational contenders, and their apathetic disenfranchisement becomes yet another factor in classroom inequality. Doubtless, a few nonparticipating students are naturally shy, but it seems implausible that most of them are. In short, the classroom environment is a likely factor in women's less than equal experience of coeducation. Sections and tutorials are meant to be about something deeper than a lively volley of quick responses. Nonassertive participation styles are gender-related under some conditions. These two facts suggest that instructors who are serious about providing equal access to scholarly dialogue must direct classroom conversation with the aim of encouraging each student to think and to speak.

Classroom environment, the development of self-esteem, and, later on, self-confidence in a profession, may be linked. The extent of students' involvement in class is a major factor in shaping their self-concepts, because the college years are a time of important developmental change. Current research on the social development of men's and women's lives has determined that both female students and female professionals tend to have lower self-esteem than their male colleagues.

In recent years, more than a dozen studies have provided evidence of women's lower self-esteem in coeducational colleges than in single-sex schools. Recently Kathleen Welch, at Yale, compared assertiveness in discussions, as one measure of self-esteem, in classrooms at Yale, Brown, Wellesley, and Smith. What she found was that women at both of the mixed-sex institutions were verbally less assertive than men, in the sense that they were more likely to use hedges, qualifiers and questioning intonations. By contrast, women at Smith and Wellesley were not only more assertive than women at Yale and Brown, but also—most surprisingly—more assertive than men at the coeducational institutions.

The effects of low self-esteem carry over into graduate school and professional life, even in settings which might be thought to confer feelings of high self-efficacy. For example, Zappert and Stansbury at Stanford have found that female graduate students experience low self-esteem in comparison with male graduate students. Self-depreciation is especially pronounced in fields in which women are present in the lowest numbers. These women, the authors reported, have less trust than graduate men in their own judgments, and a greater fear of making mistakes—both feelings associated with keeping a safe and silent distance from classroom discussion. Even female trial lawyers are uneasy about speaking in mixed-sex settings: according to a 1984 report by sociologist Betty-ruth Walter-Goldberg, female trial lawyers express much less satisfaction with their summary speeches to jurors than male lawyers do. Since both law schools and graduate schools recruit women and men with equal abilities, it is logical to conclude that these settings are themselves responsible for providing women and men with an unequal sense of their real or potential efficacy.
What can instructors do to make coeducation equal education? First, they need to keep in mind that their own gender may influence classroom dynamics. More specifically, they need to become close observers of their own classrooms by keeping notes on who contributes to discussions—at what length, at what depth, and in what order, as well as what kind of response these students got (especially if they were interrupted). For accuracy, these notes should be made immediately after class, so that dominant and subordinate contributors can be identified as they change from meeting to meeting. Teachers who find they have a poor memory for classroom interactions can get a videotape made at the Harvard-Danforth Video Lab, or they can ask a colleague to sit in on a class and take careful notes. The point is to cultivate a memory for, and an internalized sense of, the participation of individual students, so that inequalities can be avoided.

In addition, there are certain guidelines which may reduce the likelihood of inequalities developing. These will provide a learning situation in which all class members have an equal opportunity to develop confidence, judgment and ability. Teachers should hold all students responsible for assignments, and be willing to call on them directly even if they don’t raise their hands. In order to increase the chance that students will raise their hands, however, the teacher should allow a significant pause—not a pause of .5 seconds, as is typical of many teachers, but a pause of two, three or even four seconds, counted silently to oneself while looking around the room. Looking around the room has valuable pedagogical functions: it enables teachers to solicit the involvement of students who, at that moment, are likely to make valuable contributions. It also permits teachers to choose contributors with an eye towards gender equality.

Further, teachers should listen to all students with equal seriousness, challenging when appropriate, correcting or praising when correction or praise is due. Teachers should learn each student’s name and make sure to use names frequently, so that all students know they are recognized members of the class. Teachers should be careful to ask male and female students the same kinds of questions: not, for instance, reserving all abstract questions, or all factual questions, or all hard questions, for one gender. Teachers should sequence participants’ responses, so that neither gender develops a monopoly. Moreover, they should take pains to prevent interruptions, and intervene when comments occur too rapidly to permit individual students to complete their contribution to the discussion.

Instructors who decide to monitor and direct their classes with the aim of giving each student equal education can do so if they keep these general guidelines in mind. In so doing, they will not only prevent inadvertent discrimination against women, but they will also create a richer and more equal learning environment for all students.

References


Zappert, Laraine, and Kendyll Stansbury, as reported by Diana Davis in “Campus Report” (Stanford University), November 14, 1984.