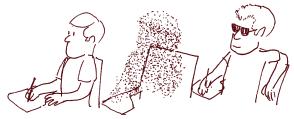
Resource: The Torch or the Firehose Arthur Mattuck

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## **Invisible Students**

Women and under-represented minority students (African-Americans, Latinos, Native Americans) report some special problems in those classes where most of the students are white males. (This is still a fairly frequent occurrence, particularly in certain technical subjects.) These problems are clearly interrelated: each one influences and exacerbates the others.



**Invisibility.** They have their hands up, but are not called on. Or the instructor cold-calls on others for answers, but regularly passes over them.

Low expectations for them. If the teacher does cold-call, the question may be embarrassingly easy, or, these students complain, they are not judged in the same way as others: the instructor's low expectations mean that if they do succeed in doing well on an exam, it is judged to be a fluke; if they ace a problem set, they must have copied it.

**Self-doubts.** At any school known to make special efforts to attract women or minorities, these students sometimes wonder if they really belong there. Are they having trouble because the material is genuinely difficult, or is it that they simply aren't up to it?

## They tell you if you're getting a C or B how 'well' you're doing. They don't think we have the desire or the ability to get an A. —minority undergraduate

For you, as the teacher, the main thing is to be aware of these common perceptions, and to be sensitive to them. Learn everyone's name and treat your students equally, but these students can be treated a little more equally. Express an interest in their work, invite them to your office hours, offer reinforcement to their questions and the answers they give in class. You can do these things without being patronizing or communicating low expectations.

Be careful about unintended slights and misplaced sympathy. Well-meaning instructors have been known to tell a woman student:

"Don't worry if you're having trouble interpreting these 3-D graphs; research shows women have poorer spatial intuition than men."

Whether the "research" is true or not is irrelevant: norms for populations as a whole never predict the behavior of any individual, and that's who you are teaching. Everyone deserves your best effort. Hopeless students have blossomed with B's and A's when their TA called them in, told them there was no reason why they shouldn't do well, and that he or she expected them to. **Language.** A final word on language. Jokes related to race or gender have disappeared from the classroom, but stereotyping and language which derives from it have not.

"Here's an oxidation-reduction reaction you women use in the kitchen."

"I'll give you a lazy South-of-the-Border-type short-cut you can use to solve this kind of problem."

"Only a black-hearted villain would give you two triple integrals to evaluate on an hour exam."

Forget the theoretical arguments about statements like these; it's just Golden Rule stuff. Imagine you're an American named O'Reilly; how would you feel if "Irish" were substituted into the second sentence above? Or if you're male, think about your reaction to hearing

"Here's a problem on predicting the destructive power of a conventional bomb that ought to interest you men."

One of the T.A.s called an algorithm "seductive." That kind of scared me. —female undergraduate