

tation of different races and genders in physics follows entirely from causes outside the field. If that were true, wouldn't all professions experience the same degree of representation?

Harry Lipkin makes the valid argument that stupidity may be mistaken for arrogance. He correctly notes that gender representation is slightly better in some other countries and that we can learn from that. We Americans are known around the world for our hubris, and this may explain some of the differences.

The combination of brilliance and humility that Leonard Weisberg mentions is the ideal paradigm for a physicist; I intended in my piece not to argue against that combination of traits but instead to discuss why it is uncommon.

T. N. Narasimhan makes a profound point when he observes that man's arrogance toward nature is dangerous. I also like James Kellinger's apt metaphor for the misguided teacher as a forester waiting for seedlings to spring up from the soil so that he can then hit them with a hammer.

Fortunately, very few writers disagree with my concern about the

downside of arrogance, and most object only to my apology for it. I stand corrected on the technical usage of the word. However, knowing that the boundary between bad arrogance and good self-confidence is blurred helps us fulfill our aim to stamp out one and not the other. Frankly, I anticipated more radical disagreement than is reflected in this set of letters; instead, almost all the writers view arrogance as a real problem for the profession. I hope that view is representative of the community.

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Cloaks and Kudos for PHYSICS TODAY's Portrayal of Women

In the delightful Harry Potter book and motion picture series, one of Harry's cherished possessions is an invisibility cloak, which enables him and his friends to carry out many explorations and pranks. Women in

physics achieve invisibility without such whimsy, and PHYSICS TODAY continues to be a prime contributor to that invisibility. Perhaps, like Harry and his friends, women's invisibility in the physical sciences contributes to their strength. However, Harry and friends are only occasionally invisible. In the pages of PHYSICS TODAY, women in the physical sciences are only occasionally visible.

The January 2003 issue is typical. In all of its articles and departments combined, the only woman appears on page 37, in a photo showing that "informal gatherings were a part of the charm of the 1954 Varenna Summer School." From the picture and caption, I see that the school was so informal that men could take off their shirts and have first names; the one woman has no first name and is completely covered (she even wears sunglasses—perhaps to maintain her relative invisibility). Maybe she is just there to contribute "charm."

The three invited articles are, as usual, all by men (five of them). The obituaries are all by men. The book reviews are all written by men about books by men. The "We Hear That"

section refreshingly mentions one woman out of 21 people.

There is no excuse for the persistence of PHYSICS TODAY as a magazine almost exclusively for, by, and about men. Without conscious attention to the inclusion of women and minority scientists, the magazine contributes to the continuing biases in the physical sciences. It would seem better to be a leader in combating them.

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As a researcher in the area of physics and gender and as a regular reader of PHYSICS TODAY, I have been struck by the fact that the overwhelming majority of the people pictured in the magazine are male. This is not a significant surprise, given that our field is male dominated. However, it did lead me to ask the question: Is the proportion of men to women in the field reflected accurately in the proportion of photos in PHYSICS TODAY?

I conducted a brief research project that looked at the January through December issues of 2002; in particular, I examined the percentage of pictures of women in PHYSICS TODAY and compared that figure with the percentage of women in physics. I took note of every photographic image, including advertisements, but did not count duplicate images found in the table of contents. According to my count, 312 images (85%) were of men and 53 images (15%) were of women.

Reports for 1998 from the American Institute of Physics and NSF provide the following data regarding the percentages of women in physics or the physical sciences.¹

Educational level/job	% women
Bachelor's degree	19
Master's degree	20
Doctorate	13
Assistant professor	17
Associate professor	10
Full professor	3
Industry (physical sciences, not just physics)	23

The representation of women in our field is approximately 10–20%; their representation in PHYSICS TODAY photographs is comparable at 15%. These results were gratifying, but I wanted to examine several points in depth. The obituary photographs tend to be of an older generation, naturally, and most women in physics are younger. Perhaps the obituaries should be treated as a separate category. I removed the obituary photos—every single one was of a male—from my total and found the percentage of pictured women increased to 18%.

Perhaps the percentage of women in advertisements was different from that in the articles and notes. Separating out the ads gave results of 17% women in nonadvertisement, nonobituary photos and 20% in advertisements.

I was pleased to find that the representation of women in pictures in PHYSICS TODAY is approximately the same as the representation of women in physics. These results, although they reflect well on the magazine, are a reminder that women are still severely underrepresented in physics; the relatively few images of women are representative of the relatively few women in the field. Physicists should be working to increase women's participation.

And perhaps more images of women would serve as encouragement for readers. In any case, kudos to the magazine for including a representative number of women in its photographs.

Reference

1. R. Ivey, K. Stowe, *Women in Physics*, 2000, rep. no. R-430, American Institute of Physics, College Park, Md. (2000); National Science Foundation, *Women, Minorities, and Persons With Disabilities in Science and Engineering*; 1998, rep. no. 99-338, NSF, Arlington, Va. (1999).

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**Leukemia:
Treatable but Not
Highly Curable**

Thirty years ago, doctors described childhood leukemia as highly treatable. Unfortunately, that description only aggravated the grief and sense of betrayal when parents discovered what it meant: an invariably fatal outcome that—through much suffering—might be postponed for some months. Now, from the article by Arthur Boyer, Michael Goitein, Tony Lomax, and Eros Pedroni (“Radiation in the Treatment of Cancer,” PHYSICS TODAY, September 2002, page 34), we learn that childhood leukemia is highly curable. It no doubt depends on one's definition of “highly,” but I see little in current mortality statistics to warrant the assertion. Although “highly treatable” may now make sense, families continue to lose children to this malady.

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