

Final comments on Eisenberg's paper

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I must begin by expressing appreciation for the spirit in which Ted accepted my comments as intended to be intellectually and not personally provocative. Let me also assure him that I was not at all offended by the paper – it would be more accurate to say that I was stimulated by it to voice some strong disagreements. Beyond the particular aspects on which we have different perspectives, I applaud his decision to raise ethical issues, too often ignored in writing about mathematics education.

I have little to add to my original response.

In relation to the accreditation of mathematical discoveries, there are two points. One is that, even if the historical record is unclear, it is still possible to acknowledge what is partially known, or even speculation. For example, Hacking (1975, p. 8) commented that "it is reasonable to guess ... that a good deal of Indian probability lore is at present unknown to us". The second is to ask the question – to what extent is the information unavailable, or not widely known, because it has been suppressed? I referred, in my initial response, to a paper by Almeida and Joseph on the development of calculus in Kerala. In this paper they argue that:

This inclination for ignoring advances in and priority of discovery by non-European mathematicians persisted until even very recent times. ... A possible reason for such puzzling standards in scholarship may have been the rising Eurocentrism that accompanied European colonization.

In relation to Ramanujan, I find odd the statement that he was "already in the [European/Western] mold of doing mathematics when Hardy and Littlewood took him under their tutelage" in the light, for example, of Hardy's statement that his gifts were "so unlike those of a European mathematician trained in the orthodox school".

The paucity of women achieving eminence in mathematics is not disputed; rather, the question of interest is why that is so.

Finally, I would like to re-emphasize that history has not stopped. As Ted comments at the beginning of his paper, people in universities are increasingly steeped in ethical issues that need to be faced as humankind strives to achieve, as Ubi D'Ambrosio puts it, "survival with dignity". I was fascinated to learn recently that in the draft of his famous (and prescient) speech on the dangers of the military-industrial complex, Eisenhower originally included "academic" (Giroux, 2007).

Primo Levi (1989, p. 175) wrote:

It would please me (and it seems to me neither impossible nor absurd) if in all scientific departments one point were insisted on uncompromisingly: what you will do when you exercise your profession can be useful, neutral, or harmful to mankind.

... Within the limits that you will be granted, try to know the end to which your work is directed. We know the world is not black and white and your decision may be probabilistic and difficult: but you will agree to study a new medicament, you will refuse to formulate a nerve gas.

References

Giroux, H. (2007). *The university in chains: Confronting the military-industrial-academic complex*. Boulder, CO: Paradigm Publishers.

Hacking, I. (1975). *The emergence of probability*. Cambridge: Cambridge University Press.

Levi, P. (1989). *The mirror maker*. New York: Schocken Books.