

## **LETTERS**

The Editorial of the February 2001 issue of *CERAPIE* (*theories in science education at the threshold of the third millennium*) had some positive responses. Wrote two distinguished science educators:

“..it provides readers with a nice overview of the field, and I am in agreement with your pluralism about theories in science education”

“ (it) presents very cogently some of the dilemmas faced by science educators”.

In the editorial's *spirit of "moving the field" forward*, Prof. G.S. Aikenhead made an extensive reference to *cross-cultural science education*. Here is the relevant part of the letter.

### **Cross-cultural science education**

**FROM: *Glen S. AIKENHEAD***

I was heartened to read the position in the February 2001 Editorial of CERAPIE: "It is the business of researchers to move the field into various research directions." I agree. I make sure my preservice chemistry students receive an eclectic account of theories that enrich teacher practical knowledge. In the spirit of "moving the field" forward and, at the same time, suggesting an update to your historical review, let me mention the work of an emerging field in science education, one which goes beyond social constructivism in an encompassing way: cross-cultural science education.

The last half of that past decade saw a fair amount of research published in this new field. I would characterize the social constructivism position by "Better Living Through Becoming a Little Chemist" and I would contrast that position with "Better Living Through Appropriating Chemistry" which characterizes a cross-cultural approach to teaching, I believe. I hope my overly succinct characterizations do not convey misconceptions. This new field is rationalized in my chapter "Renegotiating the Culture of School Science," in the very recent book edited by our mutual colleagues Miller, Leach, and Osborne, "*Improving Science Education: The Contribution of Research*". Also, a 1999 article ("Cross-cultural Science Education: A Cognitive Explanation of a Cultural Phenomenon": *Journal of Research in Science Teaching*, vol 36, pp. 269-287) by Olugbemiro Jegede and myself, provides a theoretical overview of cross-cultural science education, with a follow-up practical piece published the same year: "Transcending Cultural Borders: Implications for Science Teaching" in the journal *Research in Science and Technological Education*, vol 17, pp. 45-66. Prof Jegede initiated a special interest group within IOSTE in 1996, Culture Studies in Science Education, and we conducted a workshop at NARST in 1999 ("Culture Studies in

Science Education: Students' Indigenous Cultures versus the Culture of Science") that was preceded by an on-line discussion:

*<http://www.ouhk.edu.hk/cridal/misc/iosteculture.html>*

As stated in the editorial, science education researchers in the past have drawn upon domains within psychology in an attempt to develop theories for teaching chemistry. Our new field of cross-cultural science education draws instead upon the domain of cultural anthropology, which we think has the advantage of relating to the lives of students who do not have worldviews that harmonize with the worldview endemic to the discipline of chemistry.

*Prof. **Glen S. AIKENHEAD**, College of Education, University of Saskatchewan, 28 Campus Drive Saskatoon, SK, S7N 0X1, Canada; voice phone: 1-306-966-7563 fax: 1-306-966-7658; e-mail: [glen.aikenhead@usask.ca](mailto:glen.aikenhead@usask.ca)*