

# Article review on human evolution in science textbooks

[Parts of the World](#), [Europe](#)



Evolution, in its simplest definition is “ change in form over generations” (Kottak, 1991). Like all life forms, human beings undergo changes or modifications in each generation. The question of how human beings evolved has been a subject of extensive studies. There are many existing explanations about the ancestors of modern man and theories about these have developed over the years, and along with it controversies and alternate explanations. Students of the 21st century would find theories of human evolution in their textbooks and from here they would learn about Homo sapiens, homo erectus, Neanderthal man, Cro-magnon man, and many other concepts. They would also see pictures depicting the appearance of man from one phase of evolution to another.

### **The kind of images that textbooks, about human evolution, is the topic that interested**

Quessada, Clement, Oerke & Valente (2008). In their article entitled Human Evolution in Science Textbooks from Twelve Different Countries, the authors compared science textbooks from different countries, 12 from Europe and six outside Europe or a total of 18 countries in all. This article is the focus of this paper. In the succeeding sections, this writer discusses the methodology and results presented in the article. A personal commentary is likewise included at the latter part of the paper.

### **Methodology**

The research question of the study is “ which implicit values can be identified in the images of human beings and other Homo species in the chapters dealing with human evolution in school textbooks” (Quessada et al., 2008, p.

149). To answer such question the researchers utilized two major steps in analyzing their data. The first was examining the textbooks of the 18 countries and finding out if the topic of human evolution was present in the science textbooks. The second examined two sets images: (a) the Genus Homo in the chapters of the science textbooks on human evolution; and (b) Homo sapiens as part of the evolutionary tree or evolution timeline. For the first step, the researchers examined 30 textbooks that have chapters on human evolution. Twelve countries had such topic included in their textbook. For step 2, there were 62 images analyzed and these came 28 science books of 12 countries.

## Results

The analysis of the images presented about human evolution, from the textbooks of 18 countries (European and non-European), show that Genus Homo is a white adult male. From the results, the researchers conclude that “ behind the apparent objectivity of the familiar scientific images related to human evolution, there are some implicit values” (Quessada et al., 2008, p. 158). In support of these findings, the researchers related that the textbooks of six of the 18 countries studies did not have chapters on human evolution. These countries were “ Algeria, Morocco, Malta, Mozambique, Portugal, and Tunisia” (p. 151). As regards gender, 45% of the pictures of Genus Homo were clearly male while those identified as female comprise only 11% of the total pictures. Only Finland has a balanced number of male and female illustrations. As regards age, only 9% of the pictures were children. In the

aspect of ethnicity, the pictures had only two illustrations of persons who had Oriental features, the rest were pictures of white men.

## **Personal commentary**

As a student who have accepted such images as the scientific and objective truths, this article made me realize that “ everything is [indeed] constructed,” (Olkowski, 2012), even scientific knowledge. The science textbooks are also evidence of the implicit values of scientists who released images as well as the values of the publishers, because the latter has the decision on which images would see print. As a whole, the article by Quessada et al. (2008) is a reminder to students from the different disciplines that textbooks say more than the “ truths” of the fields of study, these also illustrate implicit values that have resulted from the evolution of knowledge.

## **References**

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- Quessada, M., Clement, P., Oerke, B. & Valente, A. (2008). Human evolution in Science textbooks from twelve different countries. *Science Education International*, 19 (2): 147-162.