

Conceptual Change about Evolution and Origins of Life throughout an Undergraduate Course of Biological Sciences

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Abstract. This research aimed to understand how students at different terms of a Biological Sciences course deal with the themes of evolution and the origin of life. The research instrument was a questionnaire developed within the European project BIOHEAD-CITIZEN applied in several countries aiming at analysing the views of students and teachers about health, environment and evolution. For this study only evolution questions were selected, which were answered by 56 students of the course of Biological Sciences, of the University Centre of Formiga, Minas Gerais (UNIFOR/MG), Brazil. The Qui-square (χ^2) and Pearsons statistical tests were applied to estimate the effect of being enrolled in the course, i.e. applied to the answers of the students attending the 2nd, 4th and 6th terms. Results showed that they accommodate new conceptions about biological evolution and human origin, which often are conflicting between science and religion views. The contradictions observed may be associated to the lack students' definition about dogmatic and scientific views. Comparisons with answers obtained in other Brazil regions and other countries were established. The results obtained at the 2nd, 4th and 6th course terms showed that attending the course leads to students' conceptual changes. It was noticed that the dogmatic views hinder the understanding and acceptance of the new scientific concepts for any students and it was concluded that attending the course makes the future biology teachers modify their conceptions. However, they find it difficult to accommodate the new scientific knowledge with their beliefs. The analysis of how these students in the future, as teachers, will deal with the dichotomy of conceptions linked to science and to religion in their classroom practices is a matter of further investigation. This research was supported by FAPEMIG.