

Abstract

Evolution is a scientific theory explaining the origin of species through the process of natural selection. Although evolution is well accepted in the scientific community, evolution has not been well received by the public. This research intends to explore reasons for rejecting or accepting of evolution through the development of RARE 2.0 (Reasons for Accepting or Rejecting evolution). RARE 2.0 was developed in two phases: item generation and piloting; and psychometric evaluation using a student sample. Additionally, relationships between epistemic cognitions about science (ECS), religiosity, religious fundamentalism and acceptance of evolution were assessed. This study sampled 476 university students using a volunteer sampling strategy. Results indicate that RARE 2.0 shows relatively good psychometric validity based on exploratory and confirmatory factor analyses. However, RARE 2.0 may still require some further development. Results from RARE 2.0 suggest that people reject evolution based on misconceptions and their epistemic ideals whereas people accepts evolution based on evidential reasons. Testing the relationships between the above-mentioned variables show that religious fundamentalism is the most predictive variable in predicting acceptance of evolution. ECS may still be a useful variable in predicting acceptance of evolution but does not reach significance when religious fundamentalism is entered into the equation. From this study, it appears that one accepts evolution when one has an authoritarian view of knowledge in science and scores low on religious fundamentalism. In contrast, one rejects evolution based on ideological ideals and has a more subjective view of the nature of science.

Keywords: Acceptance of evolution, religious fundamentalism, epistemic cognition.