SY - (15814) - LEARNING EVOLUTION BY COLLABORATION

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Short Abstract

Collaboration can be an effective means of learning, but is it effective in domains where collaborators rely on qualitatively different forms of reasoning? We explored this question in the domain of evolution, where many students construe evolution as the uniform transformation of an entire population rather than the selective survival and reproduction of a subset. College undergraduates (n = 174) completed an assessment of their evolutionary reasoning by themselves (pretest) and with a partner (dyad test); some (n = 44) also completed an assessment several weeks later (posttest). Dyads scored as high as the higher-scoring partner, and both partners maintained dyad-level scoring at posttest. Participants' posttest scores were predicted by their partners' pretest scores but only for lower-scoring partners. These findings indicate that students who hold different views of evolution are able to collaborate effectively, and such collaboration yields long-term learning gains for partners with lower levels of understanding.