Childrens age-related transition from associative learning processes to reasoning-based social learning strategies

Kirsten Blakey

University of Stirling, Stirling, United Kingdom

Eva Rafetseder University of Stirling, Stirling, United Kingdom

Mark Atkinson University of Stirling, Stirling, United Kingdom

Elizabeth Renner University of Stirling, Stirling, United Kingdom

Christine Caldwell University of Stirling, Stirling, United Kingdom

Abstract

To differentiate associatively learned strategies from explicitly reasoned selective social learning, we can look for agerelated changes in childrens behaviour that might signify a switch from one process to the other. We presented 4-to-8year-old children (N=109) with a task in which they could at first succeed by forming an associative rule, but following a switch had to explicitly reason the demonstrators perceptual access to a critical event to continue to be successful. The switch occurred after 10 trials, or if the appropriate demonstrator was selected in five consecutive trials (met criterion). Success in post-switch trials was significantly greater in older children and children who met criterion. A large proportion of children failed to reach criterion indicating that the ability to use reasoning-based understanding of others knowledge (perceptual access) develops relatively late. This late development and apparent cognitive challenge serves as potential evidence for being implicated in human cumulative culture.