



THE UNIVERSITY OF ARIZONA
COLLEGE OF SCIENCE

Psychology

Spring 2021

COLLOQUIUM SERIES

The Psychology Department is pleased to announce:

Working memory transforms goals into rewards

Anne Collins, Ph.D.

Psychology Department, The University of California, Berkeley

Humans continuously need to make good choices in our environment – be it using a new video-conferencing set up, figuring out what questions to ask to successfully secure a reliable babysitter, or just selecting which location in a house is least likely to be interrupted by toddlers during work calls. However, the goals we seek to attain – such as using zoom successfully – are often vaguely defined and previously unexperienced, and in that sense cannot be known by us as being rewarding. How does the brain enable us to immediately encode such one-shot goals as having value? We hypothesized that learning to make good choices in such situations leverages classic reinforcement learning processes, and that executive functions in general, and working memory in particular, play a crucial role in defining the reward function for arbitrary outcomes in such a way that they become reinforcing. I will show results from a novel behavioral protocol, as well as preliminary computational and imaging evidence supporting our hypothesis.

March 5, 2021

3:00 p.m. MST

<https://arizona.zoom.us/j/82871800093>

Dr. Bob Wilson | Brian Lord

Please consider joining our **Psychology Colloquium Listserv** to receive news and updates.

To join, please follow these steps:

- Send a blank message from your email account to LIST@LIST.ARIZONA.EDU.
- In the subject line, please enter: subscribe PSYCOLLOQ *YourFirstName YourLastName*
(Example: subscribe PSYCOLLOQ Wilma Wildcat)

With questions about access or to request any disability-related accommodations for this talk, please contact Vanessa Noonkester, vnoonkester@email.arizona.edu