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## Proposal Status | [MAIN](#) ►

**Organization:** Pace University New York Campus

### Review #4

**Proposal Number:** 0710790  
**Performing Organization:** Pace University  
**NSF Program:** Robust Intelligence  
**Principal Investigator:** Benjamin, David P  
**Proposal Title:** Cognitive Robot Schemas: Integrating Perception, Language and Planning in a Mobile Robot  
**Rating:** Fair

### REVIEW:

What is the intellectual merit of the proposed activity?

The proposed work is to build on the ADAPT cognitive architecture for robot control, which is based on Soar and RS ("robot schemas"). The proposed work is to implement image schemas; implement vision, natural language and problem solving for shepherding tasks; integrate vision, sonar, language, and planning; and to demonstrate the benefits of cross-area learning. The proposed work is part of an ambitious project to develop a complete robot cognitive architecture.

Most of the proposal describes the architecture and the current state of implementation. Funding the work would advance the development of this particular architecture, but it is unclear it would advance the state of the art in any particular area. The value of the proposed work is in demonstrating that the overall architecture for robot cognition is superior to other architectures, but this is difficult to evaluate.

What are the broader impacts of the proposed activity?

Undergraduates are currently involved in the research, and more will become involved. Many of these are from underrepresented groups. The project will also likely impact the course CS630.

Summary Statement

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