

CENTER FOR COGNITIVE SCIENCE

University at Buffalo, State University of New York

Wednesday, March 28, 2001

280 Park Hall
North Campus
2:00 pm –3:30 pm

“Neural Mechanisms for Learning Sequential Movements”

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People often achieve their behavioral goals by various movement sequences. In most cases, these movement sequences are learned and through training, their speed and accuracy improve. I will present some of the results from our behavioral studies showing that different dimensions of movement sequences (e.g., temporal vs. spatial) are not learned independently, but rather acquired as an integrated unit. I will then describe the results from our single-cell recording studies in non-human primates. We recorded the activity of neurons in the supplementary motor area and the primary motor cortex using a multi-electrode recording system, while the animals were performing a serial reaction time task. The results indicate that majority of neurons in both areas display changes in their activity during the course of sequence learning, suggesting that information about movement sequence is distributed in multiple brain areas.

**Refreshments will be available
Everyone is welcome to attend!**

For information please call the Cognitive Science Office at (716) 645-3794 or check
<http://wings.buffalo.edu/cogsci>