

ראש המכון: פרופ' אשר קוריאט המכון שמח לארח את



## **Prof. David C. Plaut Carnegie-Mellon University**

ההרצאה תהיה בנושא:

## How important is starting small in language acquisition?

Newport's ``less is more" account of critical period effects in language acquisition is that young children are aided rather than hindered by limited cognitive resources. This account has received computational support from Elman's demonstrations that effective learning of English-like artificial grammars by recurrent connectionist networks performing implicit word prediction depends on "starting small" (e.g., starting with limited memory. That only gradually improves). The current talk presents connectionist simulations that indicate, to the contrary, that language learning by recurrent networks does not depend on starting small; in fact, such restrictions hinder acquisition as the languages are made more English-like by introducing graded semantic constraints. An extension of the approach using sentence constructions involving the verb WANT demonstrates how seemingly categorical grammaticality distinctions (e.g., WHO DO YOU WANT TO/\*WANNA GO?) can be induced by sensitivity to the graded statistical structure of the full language. A final simulation illustrates how performing implicit prediction during sentence comprehension can provide indirect training for sentence production. The results suggest that language learning may succeed without explicit negative evidence and without innate linguistic constraints by taking advantage of the indirect negative evidence that is available in performing online implicit prediction.

חברי החוג לפסיכולוגיה מוזמנים.

ההרצאה תתקיים ביום ד' <mark>10 בינואר 2001</mark> בשעה <del>10:30</del> בחדר הסמינרים של המעמק"ה.



פקס: 249431-400