

# Invitation to Guest Talk

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## Domain General Principles of Generalization and Consolidation in Language Learning

### **Prof. Tali Bitan**

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### **When:**

02.06.2026, 10:30 AM

### **Where:**

Klinik für Kinder- und Jugendpsychiatrie und Psychotherapie  
Mehrzweckraum, Neumünsterallee 3, 8032 Zürich

### **Organized by:**

Developmental Cognitive Neuroscience Group

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### **Abstract**

The role of domain general cognitive mechanisms in language learning and processing has been historically questioned within theoretical frameworks on language evolution. Language learning shows evidence of both declarative, hippocampal dependent, mechanisms for vocabulary learning, and skill learning mechanisms for acquiring linguistic regularities.

Our research explores how domain general learning principles, known from episodic memory on the one hand and from motor and perceptual learning on the other, apply to these two aspects of language. Through behavioral fMRI and polysomnographic (sleep) studies, we demonstrate that sleep facilitates the offline consolidation of vocabulary (item) learning in adults, but not in children.

In contrast, the role of sleep and the passage of time in consolidating linguistic regularities may be more strongly affected by individual differences. Using the same paradigms, we also examine the role of learning and consolidation in explaining the deficits in individuals with Dyslexia.

Taken together, these results support the contribution of domain-general learning mechanisms to language, with different aspects of language acquisition relying on distinct cognitive systems.