

## **TGIF:**The NTU Linguist Chatroom



## Join us! Friday, 23 March 2018, 2.00pm @ HSS Conference Room (HSS-05-57)

## The Co-evolution of Social Structure and Language Structure

Linguists have long noted that in languages spoken by small, isolated groups, morphological combination is more prevalent than in languages spoken by larger and more socially inter-connected populations. More recently, theories suggesting that small societies are simply better at supporting this kind of innovation have been put forth, and further, the correlation between social structure and morphological structure has been statistically demonstrated. However, beyond correlational evidence, a mechanistic account of how languages gain and maintain complexity is lacking.

In this talk we demonstrate how complex-network methods, computational modeling, and agent-based simulation can be fruitfully combined. Using this 'Network Linguistics' approach, we can begin to probe formally the connections between social structure, language learning, and diachronic change. In particular, we will share some recent results that apply these general methods to the typological correlation mentioned above. We will present a model that incorporates fundamental principles of intergenerational transfer and the grammaticalization process, and tie variation in the outcome of these mechanisms to physical features of social network structures.

## **Speaker**



**Luca Onnis** received his PhD in Psychology in 2004 from the University of Warwick, under the supervision of Nick Chater. He was a postdoctoral research associate at Cornell University from 2004 to 2008, working with Morten Christiansen, Michael Spivey, and Shimon Edelman. He was Assistant and then Associate professor at the University of Hawaii from 2008 to 2013, where he also directed the Centre for Second Language Research. He joined NTU in late 2013, and founded the LEAP lab.



Matthew Lou-Magnuson is a Ph.D. candidate at Nanyang Technological University, Singapore, in the program for Linguistics and Multilingual Studies. He is a founding member of the Language Evolution Acquisition and Plasticity lab (LEAP), where his research focuses on the computational modeling of diachronic linguistic processes, such as grammaticalization and language change. His dissertation work combines complex-network and information-theoretic methods to investigate underlying mechanisms behind the correlation between social structure and language typology.

