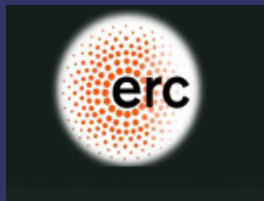


**Scuola Estiva di Glottologia e Linguistica (SIG)  
Lignano (UD), 1-5 Settembre 2014**

# Modeling Language Change in Southern Italy



**LanGeLin**  
(LANguage -GEne LINEages)

Meeting Darwin's Last Challenge:  
Toward a Global Tree of Human Languages

**Andrea Ceolin, University of York**

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- Southern Italy: interesting domain for the study of Language Change.
- Interaction between Italic and Greek languages since VIII B.C.



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### DATA

- **Language change** in a diachronic perspective has always been investigated through the **Lexicon**.
- In Longobardi & Guardiano (2009) it has been shown that under a “parametric” approach (Chomsky 1986), also **Syntax** can be used to make historical claims.
- In Guardiano et al. (2013) the two methods have been combined for the first time to study language change in Sicily and Southern Italy.

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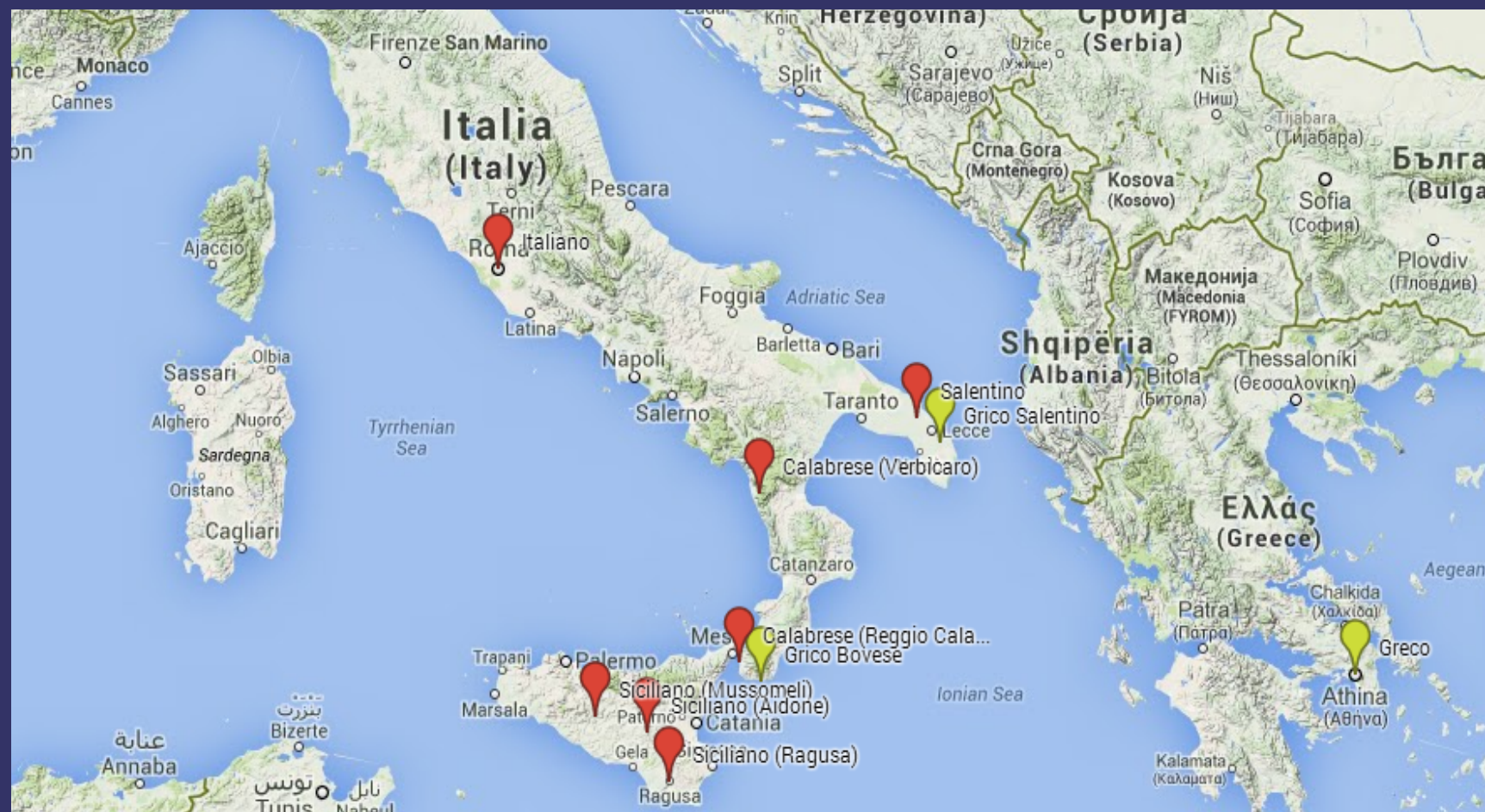
### DATA

- Lexical “Swadesh” lists collected by Cristina Guardiano (University of Modena and Reggio Emilia). They contain words referred to 207 meanings.
- 65 Syntactic Parameters from Longobardi et al. (forthcoming).

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DATA



Fonte: Google Maps

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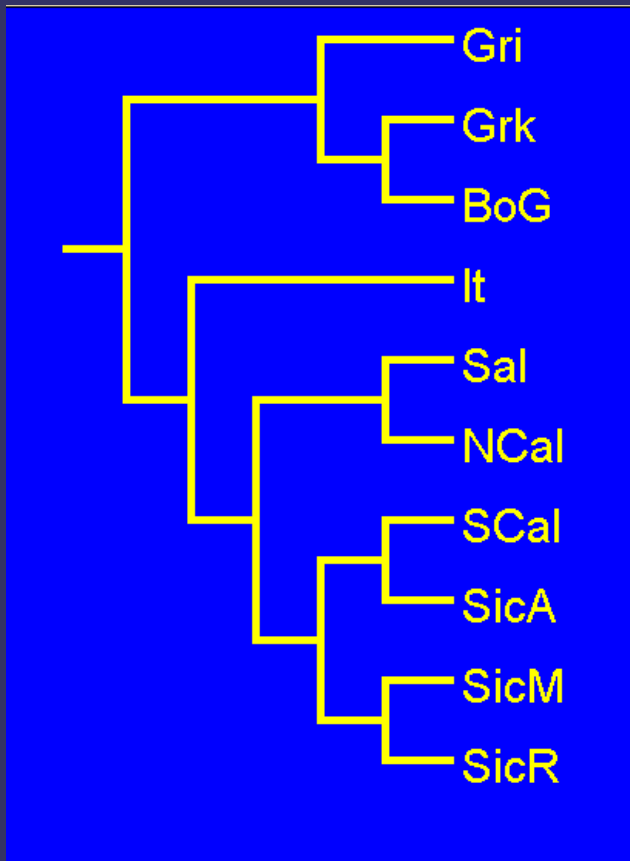
### DATA ANALYSIS

- **Phylogenetic programs (KITSCH):** Draw a phylogenetic tree.
- **Principal Component Analysis (PCA):** Plot the data on a Cartesian plane to display the main axes of variation.

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### DATA ANALYSIS – KITSCH (Syntactic data)



Gri = Grico (Calimera, LE)

Grk = Greco standard

BoG = Grico Bovese (Bova Marina, RC)

It = Italiano standard

Sal = Salentino (Cellino S. Marco, LE)

NCal = Calabrese (Verbicaro, CS)

SCal = Calabrese (Reggio Calabria, RC)

SicA = Siciliano (Aidone, EN)

SicM= Siciliano (Mussomeli, CL)

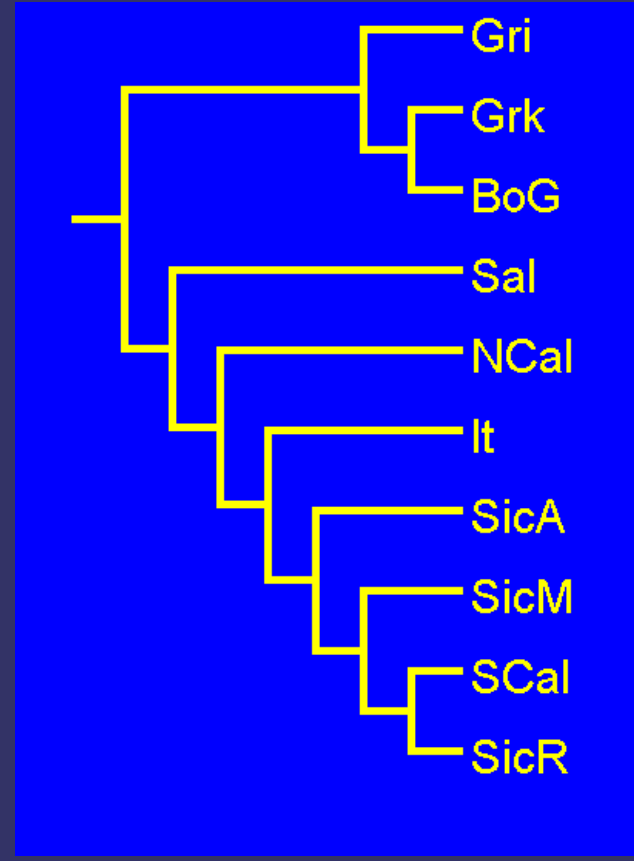
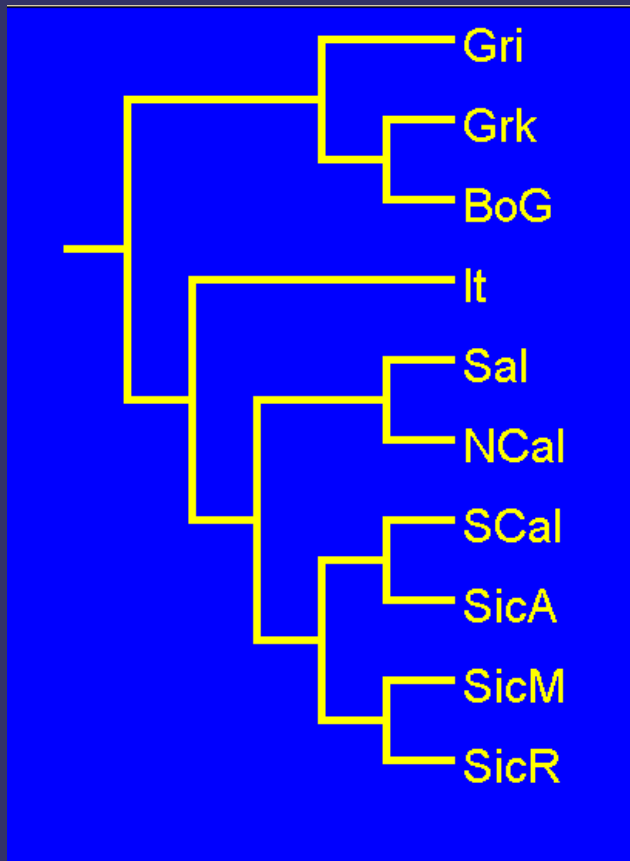
SicR = Siciliano (Ragusa, RG)



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### DATA ANALYSIS – KITSCH (Syntactic and Lexical data)





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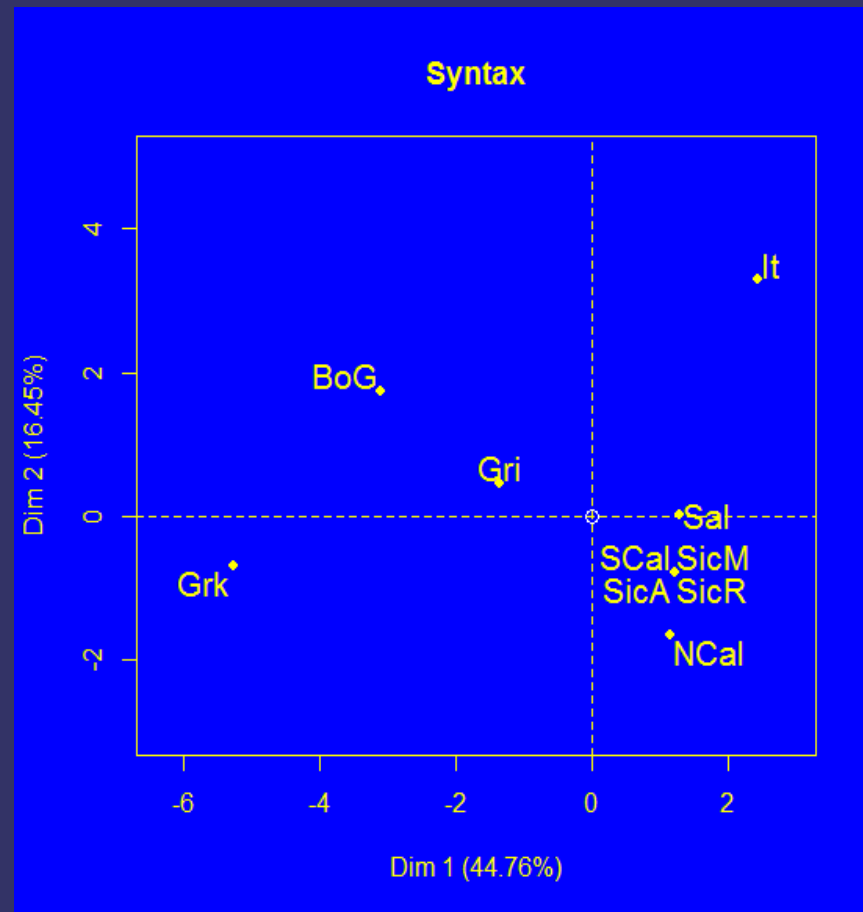
### DATA ANALYSIS – KITSCH

- Both Lexicon and Syntax show that the Greek unit is solid, but Grico Bovese is closer to standard Greek than Grico.
- From the viewpoint of Syntax, the Southern Italian unit is recognized. From the viewpoint of Lexicon, Italian is closer to the Sicilian dialects than Salentino and Calabrese (contact with other dialects?).

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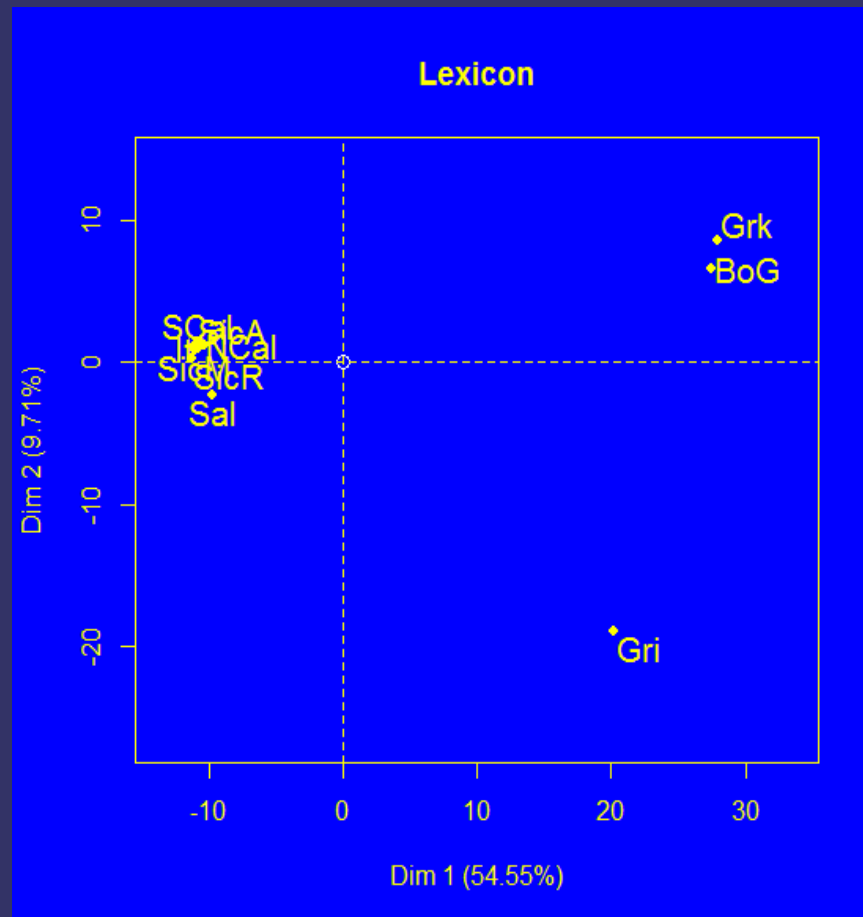
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### DATA ANALYSIS – PCA



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## DATA ANALYSIS – PCA



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### DATA ANALYSIS – PCA

- The first graph is coherent with the Syntactic tree.
- The second graph shows that Grico is isolated.  
Possible explanation: occurrence of Lexical change driven by Romance influence but not detectable in the modern languages.

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## DATA ANALYSIS – PCA

- “Lumèra” for “Fire” can be connected to the Latin “LUX”.
- “Kuài” for “Some” can be connected to the Latin “K<sup>w</sup>”.

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### CONCLUSIONS

- The brief analysis shows that contact between Greek and Italian languages has been deep in the area of Salento. Instances of borrowing are detectable in both Lexicon and Syntax.
- The Greek dialect of Bova Marina seems to be very conservative (Sociolinguistic reason?)

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## THANKS! GRAZIE!

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<http://langelin.org>

