GIS Linguistic Mapping Workshop

NUMERAL BASES AND NUMERAL CLASSIFIERS IN SMATTI: A TYPOLOGICAL SANDWICH

One-Soon Her, Hui-Chin Tsai, Kun-Han Lin, Marc Tang, Meng-Chang Lee
Graduate Institute of Linguistics, National Chengchi University

頂尖大學數位人文計畫
亞太時空資訊研究室暨數位人文工作坊

7th May 2015 – 14:10 to 16:00 + reception
General Building of Colleges, 6th Floor, GIS Lab Rm. 270610
National Chengchi University

工作坊題目～ **SMATTI** 語言中之基數詞與分類詞：一個類型學上的三明治
演講者 ～何萬順 國立政治大學語言學研究所

時間：2015 年 5月7日下午 14:10-16:00 – reception following 會後備有茶點招待。
地點：**國立政治大學**綜合院館，**GIS 教室** 270610 室。

SMATTI 是世界中最多數目分類詞語言地區的六個主要語族，包括漢語系、苗瑤語系、南亞語系、壯侗語系、藏緬語系和雅利安語系．這些語言當中，名詞(N)會透過分類詞(C)或是量詞(M)與數字(Num)結合，邏輯上有六個可能的組合但是 SMATTI 中、甚至世界的語言當中只有四種出現，而從此我們得以發現兩個現象 (Greenberg 1990[1972]:185, Aikhenvald 2000:104-105)：
1) 數詞，分類/量詞和名詞的順序
   a. 只要名詞不出現在數詞和分類/量詞間，任何排列皆可行
   b. 分類/量詞前置的順序遠比分類/量詞後置的狀況常見
我們透過數理的角度提出解釋並認為數詞和分類/量詞間存在乘法的關係．我們把數詞當作乘數而把分類/量詞當作被乘數，同樣的架構在有乘法的數字系統中相當普遍，比方說：[$n \times base$]．將分類/量詞當作被乘數得以推演出兩個語言通則：首先語言當中分類/量詞勢必和乘法同行出現，其二數詞和分類/量詞的詞序應當和乘法系統中的被乘數同步．我們透過分析 SMATTI 當中的 153 個分類詞語言得以驗證這個理論．

SMATTI is an acronym referring to six language groups in the world's foremost hot spot of numeral classifier languages: Sinitic, Miao-Yao, Austro-Asiatic, Tai-Kadai, Tibeto-Burman, and Indo-Aryan. In classifier languages, a classifier (C) or measure word (M) is used when a noun (N) is quantified by a numeral (Num). Mathematically, there are 6 possible word orders; yet, only 4 are attested in SMATTI, and elsewhere, from which two revealing generalizations obtain, as in (1) (Greenberg 1990[1972]:185, Aikhenvald 2000:104-105).
1) Generalizations of Word Orders among Num, C/M, and N
   a. Any order is possible as long as N does not intervene between Num and C/M.
   b. C/M-final [Num-C/M] orders are far more common than C/M-initial [C/M-Num] orders.
We offer an account for (1) based on an insight form a mathematical perspective. In essence, the function between Num and C/M is multiplication, regardless of word order, where Num is a multiplier, and C/M, a multiplicand. The same function exists in a multiplicative numeral as [$n \times base$]. The identical role of C/M and base as multiplicands entails two implicational universals: Co-presence of base and C/M in a language and word order synchronization between base and C/M in a language. Our survey of 153 classifier languages in SMATTI shows highly significant evidence supporting this hypothesis.

Open to all university staff, faculty, students, friends and sponsors
of the Asia-Pacific SpatioTemporal Institute facilitating the
Top University Project in Digital Humanities

Contact: David Blundell (卜 道), dsb@nccu.edu.tw / mobile 0937-910-751