Acta Physiologica 2008; Volume 194, Supplement 665 <u>The 59th National Congress of the Italian Physiological Society</u> 17/09/2008-19/09/2008 Cagliari, Italy

LANGUAGE MODULATION BY HYPNOTIZABILITY Abstract number: P31

${\rm CARLI^1}\,{\rm G},$ ${\rm MARINELLI^2}\,{\rm R},$ ${\rm BINDI^2}\,{\rm R},$ ${\rm MARCHI^2}\,{\rm S},$ ${\rm CAVALLARO^1}\,{\rm FI},$ ${\rm CASTELLANI^1}\,{\rm E},$ ${\rm SANTARCANGELO^3}\,{\rm EL}$

¹Department of Physiology, University of Siena, Italy ²Institute of Computational Linguistics (C.N.R.), Pisa, Italy ³Department of Human Physiology, University of Pisa, Italyenricals@dfb.unipi.it

Aim:

During upright stance that is an attention consuming task, subjects with high (Highs) hypnotic susceptibility have shown a similar ability at guided visual imagery, but a greater ability at somestetic imagery than individuals with low hypnotizability (Lows). Aim of the study was to assess whether any sensory modality preferences can be observed in the language of Highs and Lows.

Methods:

Two corpora of written language (5.000 occurrences each) were manually annotated and automatically processed by means of: a) textual database management systems, b) a PoS (Part of Speech)-Tagger based on texts' morphological analysis and stochastic algorithms, c) the ontological structure of a lexical-semantic database.

Results:

The Highs' texts exhibited a greater percentage of adjectives with high imagery content (32% vs. 17%), a more frequent use of visual (14% vs. 9%) and tactile (9% vs. 5%) adjectives and a greater percentage of abstract nouns (42% vs. 32%) with respect to the Lows' ones. Also the use of figures of speech evoking sensory experience impressively, such as similes, metaphors, synesthesias, is more frequent in Highs.

Conclusion:

Preliminary results support the hypothesis that hypnotisability influences language, which might be relevant in psychotherapy and neurorehabilitation.

To cite this abstract, please use the following information: *Acta Physiologica 2008*; Volume 194, Supplement 665 :P31