Consistency measures in word recognition and beyond

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Human language is arbitrary, however scholars in the field are increasingly discussing instances of systematicity (e.g., Dingemase et al., 2015), like sound-symbolism or linguistic morphology. A way to capture systematicity in language is through consistency measures.

In my talk, I will focus on a quantitative estimate of form-meaning mapping consistency and I will provide a brief overlook of its impact in a series of tasks related to word recognition and sentence processing.

The original measure developed in this line of research is the Orthography-Semantics Consistency (OSC; Marelli et al., 2015; Marelli & Amenta, 2018). OSC is a corpus-based measure that quantifies the relationship between a letter string and the meanings of all the words in a corpus that share that same sequence.

OSC showed to be a reliable predictor of visual word recognition, being able to explain significant unique variance in unprimed lexical decision on a large number of word items (BLP and ELP; Marelli et al., 2015; Marelli & Amenta, 2018), and in morphological masked priming (Amenta, Crepaldi, & Marrelli, 2020; Amenta, Guenther, & Marelli, 2020). It also modulates eye-movement metrics in sentence processing (Hasenäckeret al., 2020). Finally, it interacts with its phonological counterpart, the Phonology-Semantics Consistency (PSC) in a lexical decision task (Amenta et al., 2017), giving us a better understanding of the relationship between phonological and orthographic information in written words processing.