

University of Nebraska at Omaha

From the Selected Works of Jonathan B. Santo

2015

Does Blocking Words by Difficulty in a Reading Aloud Megastudy Improve the Predictive Power of Standard Variables on Performance Measures?

Jonathan Bruce Santo

Available at: https://works.bepress.com/jonathan_santo/32/



(1155)

Individual Differences in Reading and Spelling Skill Affect Lexical Ambiguity Resolution. ASHLEY ABRAHAM, JOCELYN R. FOLK, and MICHAEL ESKENAZI, *Kent State University*, ANGELA JONES, *John Carroll University*. — Previous research has suggested that high-skill and low-skill readers use context differentially during reading. Using a memory probe task that employed lexically ambiguous words, Andrews and Bond (2009) found that lexical experts (i.e., good readers and spellers) were less likely to rely on context during single word identification. In a reading task we investigated how reading and spelling skill influenced the use of context during lexical ambiguity resolution. Participants read sentences containing an ambiguous word preceded by varying contextual support for the subordinate meaning. Positive context definitively supported the subordinate meaning of an ambiguous word. Negative context provided support for the subordinate but still remained consistent with the dominant meaning, and there was no biasing context provided before the ambiguous word in the neutral condition. Our results replicate those of Dopkins, Morris and Rayner (1992) and extend those findings, suggesting lexical experts use context more efficiently during lexical ambiguity resolution. Email: Angela Jones, acjones@jcu.edu

(1156)

Do You Know Where Your Word Has Been? A Right Hemisphere Mechanism for Contextual Diversity. JASON GELLER, *Iowa State University*, MARY STILL, *Old Dominion University*, CATHERINE CALDWELL-HARRIS, *Boston University*. — It has been shown that words appearing in a greater number of contexts are identified more quickly and more accurately than words that appear in fewer contexts. This contextual diversity (CD) effect may be stronger than the word frequency effect. It has been hypothesized that contextually diverse words are more entrenched in memory as a result of diffuse lexico-semantic activation. According to the coarse coding hypothesis (Jung-Beeman, 2005), words eliciting diffuse activation should facilitate identification in the right hemisphere (RH). In turn, we thus predict that the CD effect would be stronger in the RH than the left. Results from a divided visual field task confirmed this hypothesis. We found a CD effect in the RH, but not the left. Based on these findings, we suggest that the locus of the CD effect is in the RH and that it is driven by the summation of diffuse lexico-semantic activation. Email: Mary Still, marylstill@gmail.com

(1157)

Letter Transposition Effects and Position of the Transposition in Italian Children. LUCIA COLOMBO and FRANCESCA PERESSOTTI, *Università di Padova*, SIMONE SULPIZIO, *Università di Trento*. — We investigated the development of transposed letters (TL) effects in lexical decision with Italian second-, third-, and fifth-graders. Stimuli were short (babra, from barba) and long (arrotso, from arrosto) nonwords and matched controls. The position of transposition was manipulated in long nonwords, either at the beginning (ditsanza, from distanza) or at the end (arrotso). We found significant TL effects at each grade level. For long nonwords, the effect increased with age,

and was larger for final than initial transpositions. There was also an interaction of TL and TL position effects, and the interaction effect increased with age. These results are discussed with reference to the multiple-route developmental model by Grainger, Lè, Bertand, Dufau and Ziegler (2012). Email: Lucia Colombo, lucia.colombo@unipd.it

(1158)

Does Blocking Words by Difficulty in a Reading Aloud Megastudy Improve the Predictive Power of Standard Variables on Performance Measures? MICHAEL CORTESE, *University of Nebraska at Omaha*, MAYA M. KHANNA, *Creighton University*, ROBERT KOPP and JONATHAN B. SANTO, *University of Nebraska at Omaha*, KAILEY S. PRESTON, *Creighton University*. — We tested the list homogeneity effect in reading aloud (e.g., Lupker, Brown, & Colombo, 1997) using a megastudy paradigm. In each of two conditions, there were 25 blocks of 100 trials. In the traditional condition, words were ordered randomly, while, in the experimental condition, words were blocked by difficulty (e.g., easy words together, etc.), but the order of the blocks was randomized. We predicted that standard factors (e.g., frequency, length, etc.) would be more predictive of RT in the blocked than random condition because the range of RTs would increase in the blocked condition. Our preliminary results support this prediction. First, the standard deviation for RTs across words was larger in the blocked condition than the traditional condition. Moreover, our predictor variables accounted for approximately 8% more variance in the blocked than the random condition. This outcome has important implications for megastudies of reading aloud and computational models of word recognition. Email: Michael Cortese, mcortese@mail.unomaha.edu

(1159)

How Do People Speaking Different Languages Approach Graphemes Differently? Evidence From Eight Language Groups. LI-YUN CHANG, *National Taiwan Normal University*, CHARLES A. PERFETTI, *University of Pittsburgh*, HSUEH-CHIH CHEN, *National Taiwan Normal University*, SCOTT FRAUNDO and XIAOPING FANG, *University of Pittsburgh*. — This study examined how individuals speaking different languages approach graphemes in different writing systems. We hypothesized that visual perception is tuned by reading experiences in a particular writing system. Data were collected via the Internet (60 individuals from eight language groups, respectively) and in the lab (60 speakers using English, traditional Chinese, and simplified Chinese, respectively). In a same-different judgment task (judging whether pairs of graphemes are the same or different), we found that perception is a function of L1 background and grapheme complexity. Interestingly, in a pattern discrimination task (judging whether two non-grapheme patterns are both symmetrical or both asymmetrical), we discovered higher accuracy in the Chinese groups relative to the English group and faster response time in the traditional Chinese group relative to the simplified one. Collectively, findings suggest that individuals' visual skills may be tuned by how visually complex their L1 is, even for individuals speaking the same language. Email: Li-Yun Chang, skylilyun@ntnu.edu.tw