

**PB-007****Focusing and shifting attention in human children and chimpanzees**

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Humans are confronted daily by situations which require the ability to coordinate co-occurring tasks, and to simultaneously pay attention to the demands of the activities being executed as well as other stimuli, focusing on what is most relevant and filtering out what is extraneous. Even if such flexibility in action and attention is advantageous for any species, humans seem unique in the degree of flexibility demanded and the prevalence of situations which require such coordination. In two studies, we compared 4- and 5- year- old children and one of humans' nearest relatives, chimpanzees, in their ability to focus and shift their attention when necessary. The results of Study 1 showed that 4-year-old children and chimpanzees were very similar in their ability to monitor two identical devices and to sequentially switch between the two to collect a reward, and that they were less successful at doing so than 5-year-old children. In Study 2, which required subjects to alternate between two different tasks, no species or age differences were found. These results suggest that chimpanzees and human children share some fundamental attentional control skills. However, this study also suggests that such abilities gradually develop during human ontogeny and result in the uniquely human ability to monitor and shift attention between a large numbers of simultaneous tasks.

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**PB-008****Gender, socioeconomic status and prereading skills**Tímea Török<sup>1</sup>, Ágnes Hódi<sup>2</sup>, Renáta Kiss<sup>1</sup><sup>1</sup> University of Szeged Doctoral School of Education<sup>2</sup> MTA SZTE Research Group on the Development of Competencies

The association between phonological awareness (PA) and non-cognitive variables such as socioeconomic status (SES) and gender has been widely studied. The relationship between PA and SES is still unclear (Purall-Gates, 2008). Some research claims that there is no connection between PA and SES (Noble, Farah & McCandliss, 2006) Nevertheless, others pointed out that higher SES results in an increased phonological awareness performance (Vloedgraven, 2008). In addition, Lundberg, Larman & Strid (2012) found significant gender difference in PA acquisition. However, research regarding the

relationship between letter-sound correspondence (LSS), perception and identification of orthographic patterns (PIOP) and these background variables is scant. Thus, the aims of the present study are to examine the development of PA, LSS and PIOP from Grade 1 to 4 and the relationship between gender and SES and Hungarian students' performance of prereading skills. Students (N=205) were administered an online prereading skill test battery (84 items) and a background questionnaire (70 items) by means of an online platform. Mother's educational level was used as a proxy for SES. Data show that PA developed significantly between the 2nd and 3rd grade ( $F=22.39$   $p<.01$ ), performance on PIOP and LSS remained unchanged between the grades ( $F_{PIOP}=3.97$   $p<.05$ ;  $F_{LSS}=2.57$   $p>.05$ ). There were no significant gender differences in PA and LSS but in case of third graders' PIOP boys outperformed girls. LSS and PA correlated significantly with SES ( $r_{LSS}=.19$   $p<.01$ ;  $r_{PA}=.35$   $p<.01$ ). In sum, the influence of SES on two of the most influential prereading skills appeared during the period of learning to read. Gender differences only occurred in PIOP. Further analysis is needed to determine the exact constituents of SES contributing to the prevalence of this relationship. The lack of achievement gap in terms of gender may facilitate the better understanding of the achievement disparity between boys and girls in reading comprehension.

## **PB-009**

### **Naturalistic social learning in infancy: the case of plants**

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For humans living in naturalistic environments, plants are central to everyday life as sources of food, raw materials for artifact construction, and their underlying chemical properties (e.g., medicines and poisons). However, because the features of edible and poisonous plants vary widely, employing a general strategy that all plants are edible (or poisonous) would be extremely costly. This poster will present a series of recent studies examining whether humans possess evolved social learning mechanisms that balance the costs and benefits associated with plants.

The first set of studies investigates the protective behavioral strategies infants employ prior to receiving social information about a particular plant. These studies show that 8- to 18-month-olds show a striking reluctance to reach out and touch plants compared to other types of entities, a strategy that would protect them from the type of harm that plants inflict (poisoning, physical injury). A second set of studies demonstrates that 6- and 18-month-olds engage in selective social learning of plant edibility. Specifically, infants treat the same