**Supplementary Material**

**Power analysis** - The power of the study was calculated by G\*Power software (Faul, Erdfelder, Lang, & Buchner, 2007) and estimated by using the effect size of a previous study in which the performance of two groups of adult participants was compared in the post-acquisition test of the PS task (*ηp²=.*213) (Frank, Santamaria, O'Reilly, & Willcutt, 2007). The power analysis indicated that in order to detect a difference between the two groups a sample of 17 participants per group would be needed to obtain statistical power at a .80 level with an alpha of .05.

**The influence of reinforcing feedback on rapid early acquisition**

According to Waltz, Frank, Robinson, and Gold (2007), performance on the post-acquisition test items in the PS task reflects the gradual, habit-like acquisition of contingencies, largely dependent on the BG. A second type of reinforcement learning involves the (PFC-dependent) ability to represent and integrate feedback online to rapidly learn contingencies (Frank & Claus, 2006). To assess the second type of learning, we calculated "win-stay "and "lose-shift" scores for each reinforcement condition in block 1. Win stay scores were defined as the proportion of repeated stimulus choices in a given condition that followed reinforced choices. Lose-shift scores were determined as the proportion of switched stimulus choices in a given condition that followed non-reinforced choices. Total win-stay and lose-shift scores were assessed by averaging scores across conditions for each group, and between-group differences in mean scores were examined using t tests. Two-sample *t*-tests revealed that following positive feedback, participants with dyslexia were as likely as neurotypicals to choose the same rewarded stimulus in the next trial where it appeared (i.e., win-stay condition), *t* (38) = 1.55, *p* = .12, and were also comparable in switching choices in the subsequent trial of the same type after receiving negative feedback (i.e., lose-shift condition), *t*(36) = -.90, *p* = .37.This pattern of results suggests that individuals with dyslexia are capable of using feedback to rapidly modify choice behavior.

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