not the adaptive condition) showed a slightly larger change in working memory performance following training than the control. It is helpful for clinicians to be aware that adaptive working memory training programs might not be superior in improving children's working memory, and the benefits of programs are limited.

---

5 Social perception and ability to evaluate sincerity of speech impacted by childhood hemispherectomy

Mitchell R Spezzaferri[1], Lynn K Paul[2], Warren S Brown[1]
[1]Travis Research Institute, Fuller Graduate School of Psychology, Pasadena, CA, USA.
[2]California Institute of Technology, Pasadena, CA, USA

Objective: Hemispherectomy (HE) is a surgical intervention to treat intractable epilepsy. It involves disconnecting or removing the right or left cerebral hemisphere, depending on the location of the pathological substrate or epileptogenic activity. HE impacts neural functions related to social cognition (Fournier et al., 2008). This study investigates the effects of childhood HE on social deception and sarcasm using the Thames Awareness of Social Inferences Task (TASIT; McDonald, Flanagan, & Rollins, 2010) to explore emotion identification and social inference appraisal as adults.
Participants and Methods: Fifteen adults with hemispherectomy and 16 neurotypical controls completed the TASIT. All HE patients underwent hemispherectomy (right-HE = 10) during childhood (age of surgery = 3 months to 16 years) and had FSIQ > 70 at the time of study. HE and control groups were matched for age (HE M = 25.7, SD = 5.4; control M = 27.1, SD = 10.7) and education (HE M = 14.0, SD = 1.88; control M = 13.3, SD = 1.8). FSIQ was significantly lower in the HE group than control group (HE M= 90.8, SD = 9.4; control (M = 100.4, SD = 7.1).   TASIT uses videotaped vignettes to assess aspects of social perception: emotion recognition (Part 1), social inference regarding sincerity, simple sarcasm, and paradoxical sarcasm (Part 2) and social inference regarding sincerity of speech (lie vs sarcasm) in the presence of additional text or visual cues (Part 3).
Results: For Part 1, MANCOVA (covarying FSIQ) found no group difference in emotion identification. Analysis of data from Part 2 was conducted using repeated measures ANCOVA accounting for 2 groups x 3 conditions (sincere, simple sarcasm, and paradoxical sarcasm) and revealed only a significant overall group effect, $F_{(1, 28)} = 5.72$, $p = .024$, $\eta p2 = .170$. Likewise, analysis of Part 3 using repeated measures ANCOVA accounting for 2 groups x 2 cue types (visual, text) and 2 actor intentions (lie, sarcasm) revealed only a significant overall group effect, $F_{(1,28)} = 11.35$, $p = .002$, $\eta p2 = .288$, with no interaction of group by condition.
Conclusions: HE patients exhibited no difficulty identifying basic emotional expressions. Performance was significantly impaired when additional social information was added to the context (i.e., detecting sarcasm or deception). HE patients begin to struggle with the complexity of new social information or how it changes the meaning of a conversation. Even simple sarcastic exchanges are difficult to interpret. When a visual or textual cue was introduced to reveal the true state of affairs, HE patients could not could integrate the information into their interpretations of the scenario. There are unique contributions of the left and right hemispheres to cognitive processes for complex social behavior, and absence of an entire hemisphere results in deficits in social language comprehension. Future research should investigate performance differences in left vs. right HE patients.