

Theory of Mind Training Following Traumatic Brain Injury: A Pilot Study: 0045

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Abstract:

[North American Brain Injury Society's Sixth Annual Conference on Brain Injury: October 2–4, 2008, New Orleans, Louisiana: Abstract]

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Objectives: Aspects of successful communication rely on an ability to infer the mental states of conversational partners. Understanding other people's mental states assists us in understanding and predicting their behaviors. Mental states are often described in terms of two components of a "Theory of Mind" (ToM): first-order beliefs, that is, what a person believes about the world, and second-order beliefs, that is, what one person believes about the mental state of another person. ToM deficits have been reported in individuals following traumatic brain injury (TBI). This study focuses on remediation of ToM deficits in 3 individuals with TBI.

Method: Our training program follows the outlines of a single subject experimental design. We administer a pre-training and post-training assessment and a series of baseline assessments prior to initiation of training. The specifics of the training program were designed to support mental state operations that tap (1) difficulty generating thoughts about pictured objects from another's perspective; (2) difficulty evaluating the thoughts of one or two characters as objects change form and the characters change location; (3) difficulty evaluating differences between characters' thoughts and their eventual actions; and (4) difficulty inhibiting personalized thoughts, unrelated to the characters.

Results: Three patients with moderate-to-severe TBI have completed this ToM training program. Results indicate, first, that significantly impaired patients with TBI are capable of carrying out the component tasks and find the protocol sufficiently interesting to remain with the protocol to its completion. Second, all patients displayed clear evidence of a response to the training as demonstrated by their ability to reach criterion on all tasks. The results offer the potential to improve ToM performance in patients with TBI, even years post-injury, and outline a new approach to the treatment of deficits associated with TBI.