Motor Control and Children with Autism: Deficit of Anticipatory Function?

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Subjects with autism were compared to controls on a task of bimanual load-lifting that required stabilization of the forearm. The researchers measured the angle of the elbow and took electromyographic readings of the forearms. The results showed that the children with autism were similar to controls in ability to stabilize the forearm. However, the measures of kinematics showed a difference in the methods of muscle use which suggested that children with autism use feedback rather than feed-forward to control such movements. The authors suggest that impairments in creating internal representations and mastering timing could explain differences in postural anticipation in children with autism.