While error avoidance during learning appears to be the rule in American education, laboratory studies suggest that it may be a counterproductive strategy, at least for neurologically typical students. Experimental investigations indicate that errorful learning - followed by corrective feedback - is beneficial to learning. Interestingly, the beneficial effects are particularly salient when the person strongly believes that their error is correct: errors committed with high confidence are corrected more readily than are low-confidence errors. Corrective feedback, including analysis of the reasoning leading up to the mistake, is crucial. Aside from the direct benefit to learning, teachers gain valuable information from errors, and error tolerance encourages students' active, exploratory, generative engagement. If the goal is optimal performance when the situation is high stakes, it may be worthwhile to allow and even encourage students to commit and correct errors while in low stakes learning situations rather than assiduously avoiding errors at all costs.