Variability Helps Children Balance a Beam

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Abstract: Basic-level research suggests that learning about an event is a function of what is being attended to and what is being ignored rather than amount of time spent exploring the event. However, what about learning to overcome a misconception, such as the task of balancing an asymmetrically weighted beam away from center? This research investigated the effects of training variability for children trying to balance visually symmetrical yet proprioceptively asymmetrical beams on a fulcrum. Results indicate that (i) older children's judgments of a beam's weight distribution improved with experience, (ii) younger children had particular difficulty distinguishing between the heavier and lighter side when the weight difference was smallest, and (iii) children in the mixed-experience condition scored fewer errors than children who received more extensive experience but in just one type. The findings of a significant quadratic trend for effect of learning underscore the importance of variability in children's experience.