



# The Adolescent Brain: Learning, Reasoning, and Decision Making

*Valerie F. Reyna*

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The period from adolescence through young adulthood is one of great promise and vulnerability. As teenagers approach maturity, they must develop and apply the skills and habits necessary to navigate adulthood and compete in an ever more technological and globalized world. But as parents and researchers have long known, there is a crucial dichotomy between adolescents' cognitive competence and their frequent inability to utilize that competence in everyday decision-making.

This volume brings together an interdisciplinary group of leading scientists to examine how the adolescent brain develops, and how this development impacts various aspects of reasoning and decision-making, from the use and function of memory and representation, to judgment, mathematical problem-solving, and the construction of meaning.

The contributors ask questions that seek to uncover the basic mechanisms underlying brain development in adolescence, such as:

- How do the concepts of proof and reasoning emerge?
- What is the relationship between cognitive and procedural understanding in problem-solving?
- How can researchers build assessments to capture and describe learning over time?

*The Adolescent Brain* raises questions relevant to young people's educational and health outcomes, as well as to neuroscience research.

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