

COMING OF AGE

A special issue explores the maturing science of adolescence.

IT'S WIDELY ACCEPTED THAT ADOLESCENTS ARE MISUNDERSTOOD.

Less well known is how far we still have to go to understand adolescence itself. One problem is that it is hard to characterize: the concept of puberty does not capture the decade or more of transformative physical, neural, cognitive and socio-emotional growth that a young person goes through. Another is that science, medicine and policy have often focused on childhood and adulthood as the most important phases of human development, glossing over the years in between.

Yet understanding adolescents and adolescence is crucial. It's becoming clear that physical and mental health at adolescence often set a trajectory for the rest of life. Meanwhile, today's teenagers are projected to make up the largest generation in human history. Most of the world's 10- to 19-year-olds are maturing in parts of the globe that are facing enormous health, environmental and socio-economic challenges. And all are growing up in an ever-transforming digital world.

In this issue, we explore the science of adolescence — a field that is itself coming of age. A News Feature on page 429 explores how the boundaries of adolescence are widening, thanks to advancing puberty and shifting societal definitions. Another News Feature, on page 426, describes how neuroscientists are showing that risk-taking and rebellion are more nuanced than stereotypes suggest — and are sometimes even useful. There will be an accompanying podcast at go.nature.com/2geosm3 and a video at go.nature.com/2syvbdh.

In a Comment on page 432, developmental psychologist Candice Odgers argues that digital technology is not the widespread menace it is often made out to be — but that young people struggling in their offline lives may be at increased risk online. On page 435, social scientists Robert Blum and Jo Boyden stress the importance of understanding the daily lives of adolescents in low- and middle-income countries, home to 90% of the world's 10- to 24-year-olds. A News & Views on page 438 appraises the Feinberg hypothesis, which posits that abnormal pruning of neural connections in adolescence leads to schizophrenia, and a Careers Feature on page 559 looks at scientists who give teenagers jobs in the lab.

Three reviews explore some paradoxes of adolescence. On page 441, paediatrician Ronald Dahl and his colleagues review the evidence for adolescence as a physical, cognitive and socio-emotional growth spurt, and look at how to design policies that take into account teenagers' unique needs and values. On page 458, epidemiologist George Patton and his colleagues explore how factors that harm adolescent health can affect the next generation. And on page 451, anthropologists Carol Worthman and Kathy Trang use life-history theory to interpret shifts in biological puberty, and in cultural definitions of and influences on adolescence.

Nature's articles are part of a collection of content (<http://nature.com/collections/adolescence>) in nine journals from the Nature family and its sister publication, *Scientific American*. It is the largest such collection that the Nature journals have ever published — and one that we hope proves valuable for scientists, policymakers and parents alike. ■

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