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Why teens take risks ... : a neurocognitive analysis of developmental changes and individual differences in decision-making under risk

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Propositions

Adolescent risky behavior is the consequence of increased sensitivity to rewards paired with immature cognitive control.

Eight year old children are able to make adult like decisions that require weighing probabilities and potential rewards, this makes it unlikely that adolescents take risks because they don't understand what they are doing.

The finding that the ventral striatum responds more to anticipated and received rewards in mid adolescence than in childhood or adulthood even in the absence of behavior suggests that this reflects a fundamental difference in the way this region functions during this time.

The balance between drive and control that underlies risky behavior in adolescence is dependent on the context.

It is important to educate adolescents about the possibilities they have to shape their brains.

Given the development of the ability to judge probabilities, 14 year olds who say that they are "*never* allowed to do *anything*", and are "*always* misunderstood", probably know that they are wrong.

The development of fMRI has led to revolutionary new insights in child development, and to an enormous number of questions that remain to be answered.

Getting children to lie still is often unjustly seen as the biggest challenge in developmental imaging research.

Future studies should aim to understand the relation between brain function and behavior on the level of individuals.