

Wargo, E. (2006). Risky Business: The surprising 'rationality' of adolescents. *Observer*, 19(12). Retrieved April 6, 2010, from <http://www.psychologicalscience.org/observer/getArticle.cfm?id=2098>.



December 2006

Revolutionary
Science

Observer

Vo PRINT EMAIL SHARE

Risky Business: The Surprising 'Rationality' of Adolescents

Is it a good idea to swim with sharks? Is it smart to drink a bottle of Drano? What about setting your hair on fire — is that a good thing to do?

People of all ages are able to give the correct answer (it's "no," in case you were wondering) to each of these questions. But adolescents take just a little bit longer (about 170 milliseconds longer, to be exact) to arrive at the right answer than adults do. That split second may contain a world of insight into how adolescents tick — and how they tick differently from adults.

A major new report by Valerie F. Reyna (Cornell University) and Frank Farley (Temple University), "Risk and Rationality in Adolescent Decision Making," in the journal *Psychological Science in the Public Interest* (PSPI), summarizes the current state of psychological science research on decision making, on why adolescents make the (sometimes bad) decisions they make, and on how interventions may be better designed to steer young people toward better choices. In so doing, the authors overturn several cherished assumptions about the adolescent mind.

For example, it is commonly believed that adolescents think they are just plain invulnerable to life's slings and arrows. They think they're immortal. This notion is often used to explain why young people are liable to drive fast, have unprotected sex, smoke, or take drugs — risks that adults are somewhat more likely to shy away from.

Research shows that adolescents do exhibit an optimistic bias — that is, a tendency to underestimate their own risks relative to their peers. But this bias turns out to be no more prevalent in adolescents than in grownups; adults commit the very same fallacy in their reasoning. And actually, studies on perception of risks by children, adolescents, and adults show that young people tend to overestimate their risks for life's hazards, both in absolute terms (i.e., as compared with actual risks) and relative to adults.

In other words, adolescents actually perceive themselves to be at *greater* risk for a wide range of perils (including car accidents and sexually transmitted diseases such as HIV/AIDS) than they really are; and their estimation of their own vulnerability declines rather than increases with age. Given that, it might seem like the only possible explanation for adolescent risk taking is that young people are just less rational than adults are — knowingly putting themselves at risk and thereby acting against their own best interests. But once again, the report by Reyna and Farley overturns our assumptions. Here is where that extra 170 milliseconds comes in.

Decision research shows that adolescents make the risky judgments they do because they are actually, in some ways, *more rational* than adults. Grownups tend to quickly and intuitively grasp that certain risks (e.g., drunk driving, unprotected sex, and most anything involving sharks) are just too great to be worth thinking about, so they don't proceed down the "slippery slope" of actually calculating the odds. Adolescents, on the other hand, actually take the time to weigh risks and benefits — possibly deciding that the latter outweigh the former. (It is during adolescence, in fact, that the parts of the frontal lobe that govern risk/reward calculations undergo significant maturation.)

So really, adolescents engage in just the sort of calculations — trading off risks against benefits — that economists wish that *all* people would make. But economists notwithstanding, research is showing more and more that a faster, more intuitive, less strictly "rational" form of reasoning, one that comes with increased experience, can often be more effective. Mature or experienced decision makers (e.g., experienced vs. less experienced physicians) rely more on intuitive reasoning, processing situations and problems as "gists" rather than weighing multiple factors and evidence. This leads to better decisions, not only in everyday life but also in places like emergency rooms where the speed and quality of risky decisions are critical.

These counterintuitive conclusions about the decision-making processes of young people have major implications for how to intervene to help steer them in the right direction. For example, many interventions aimed at reducing smoking or unprotected sex in young people present data on lung-cancer and HIV risks. According to the authors of the PSPI report, such approaches may actually backfire if young people already overestimate their risks anyway. Instead, interventions should focus on facilitating the development of mature,

gist-based thinking in which dangerous risks are categorically avoided rather than weighed in a rational, deliberative way.

To learn more about risk taking and decision making in adolescence, see the full PSPI report at www.psychologicalscience.org/journals.

- Eric Wargo



[Search the *Observer* for more articles.](#)

Comments on this Article

Submit your Comments

Your Name	Display Name	Email Address (Will not be printed.)
<input type="text"/>	<input type="text"/>	<input type="text"/>
Your Comment (Limit 100 words/1,000 characters)		
<input type="text"/>		
<input type="button" value="Submit Comment"/>		