Risky decision making among adolescents

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Abstract

In this report, we analyze adolescent risk-taking from a behavioral decision-making perspective, with respect to the following questions:

• Why is adolescent risky decision making important?
• What is rational, adaptive, or good decision-making for adolescents (i.e., normative approaches)?
• What are the main explanatory models of adolescent risk taking?
• What are the key data (i.e., those data that illuminate prediction, explanation, and intervention)?
  - How do adolescents perceive risk (e.g., the myth of invulnerability)?
  - What changes occur in risky decision making with development?
• What are the main approaches to risk reduction and avoidance?
• What are some key implications of current data for different approaches to risk reduction and avoidance?

Specifically, we briefly describe some important social consequences of adolescent risk-taking, for example, that one out of four people with HIV/AIDS became infected as teenagers. Using a behavioral decision-making framework, we describe traditional normative characterizations of good decision-making. Recent challenges to this characterization of good decision-making are also described. One of the main explanatory models of adolescent risk-taking is the behavioral decision research perspective. This perspective explains decision-making in terms of identifying options, assessing probabilities, weighing values, and integrating them in order to make a choice—all quintessentially cognitive activities. An expanded version of this perspective adds emotional, social, and developmental considerations in decision-making. Other explanatory linear models (e.g., health belief or expectancy-value models) have been supported empirically and capture such constructs as attitudes, beliefs, social norms, behavioral intentions and self-efficacy (e.g., the efficacy of refusal skills). Interventions have been developed from these models, and those that combine multiple components have achieved limited success in changing behavior. The most recent explanatory model of adolescent risk-taking, fuzzy-trace theory, uses assumptions about dual processes in memory and reasoning, especially gist-based fuzzy intuition, to explain how risky decision-making develops from childhood to adulthood.
These models of adolescent risk-taking can be evaluated by their ability to accommodate counterintuitive findings such as the following:

• Despite conventional wisdom, adolescents do not perceive themselves to be invulnerable and perceived vulnerability declines with increasing age.
• Although the object of many interventions is to enhance the accuracy of risk perceptions, adolescents typically overestimate important risks, such as HIV risk.
• Despite increasing competence in reasoning, biases in judgment and decision-making grow with age, producing more “irrational” violations of coherence among adults than among adolescents and younger children.

Some approaches to reducing risk-taking have focused on how teens evaluate risks and benefits (e.g., abstinence programs stressing the benefits of avoiding sex outside of marriage) or how they estimate the probabilities of these outcomes (e.g., social norms programs countering the pluralistic ignorance leading teens to overestimate the frequency of risk behavior, hence the chance of them being socially approved), among other approaches. The limited effectiveness of these programs in the short term and their tendency to wane in effectiveness in the long term (e.g., more than six months to a year) suggest that additional explanatory and predictive factors are needed to reduce adolescent risk-taking (or, alternatively, to accept the rationality or adaptiveness of risk-taking behaviors in this population).

More generally, most interventions to reduce risk-taking aim to enhance the accuracy of risk perceptions, to overcome adolescents’ belief that they are invulnerable, and to transform intuitive, biased adolescent decision makers into analytical, unbiased adults. According to the data, each of these aims is misguided. Regardless of the outcome of comparisons of alternative models and interventions, however, the tripartite division of behavioral decision theory into normative, descriptive, and prescriptive considerations will remain a useful meta-theoretical framework for evaluating policy implications – regarding the gambles to take with adolescents’ welfare, given our current state of knowledge – and research implications – regarding critical normative, descriptive, and prescriptive gaps in our understanding.