Adolescent Invulnerability, Optimism Bias, and Risk Attitudes Across Domains

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Abstract

The current study contrasted adolescent invulnerability and optimism bias by evaluating whether they correlated with different types of risks. While optimism bias failed to correlate with any risk type, greater invulnerability was correlated with greater ethical, gambling, health, and recreational risks. This further suggests that these are separate constructs.

Background

During adolescence, people often engage in greater risk-taking than at any other time during their lives. Research has often focused on which psychological constructs best predict adolescent risk-taking. One suggestion is that adolescents create a false cognitive sense of invulnerability, as a result of personal fable ideation during adolescence. Importantly, felt invulnerability may help adolescents as they attempt to form a functional identity, separate from their parents; therefore, this suggests a developmental phenomenon occurring during adolescence. Another suggestion is that adolescents simply feel more optimistic about their risks relative to others; namely, they believe that good things are more likely to happen to them, while negative outcomes are more likely for others. However, this bias occurs throughout the lifespan, and is thus not definitive of adolescent development. Therefore, it is of interest to determine whether risk-taking is better conceptualized as a developmental issue or one of heuristic biases.

The current study further investigated the relationship between adolescent invulnerability and optimism bias. Past research has found that invulnerability may be a better predictor of overall risk-taking. Using a domain-specific risk taking scale, we instead tested whether these two constructs were differentially related to different types of risks. This will further test whether these are truly separate constructs.

Method

Participants: 114 undergraduates (68% male, M_{age} = 19.6 years)

Reliabilities of Interest: Adolescent Invulnerability Scale (Lapsley, Hill, Dumford, & Aalsma, 2008; α = .83); Optimism Bias (α = .74); Domain-Specific Risk Attitudes Scale (Weber, Blais, & Betz, 2002): Ethical (α = .75), Investment (α = .62), Gambling (α = .76), Health/Safety (α = .62), Recreational (α = .84), Social (α = .64)

Risk Scale Sample Items

Ethical: Cheating on an exam, illegally copying a piece of software

Investment: Investing in a very speculative stock, investing in mutual funds

Gambling: Betting on the horse races, gambling at a casino

Health/Safety: Engaging in unprotected sex, not wearing a seatbelt

Recreational: Bungee jumping, piloting your own small plane

Social: Approaching your boss for a raise, disagreeing with your father on an issue

Correlations with Invul. and Optimism Bias

	Invulnerability	OB
Ethical	.23*	-.02
Investment	.19*	.10
Gambling	.28**	.17^
Health/Safety	.23*	-.04
Recreational	.24**	.11
Social	-.01	.00

*(Inv and Optimism Bias, r = .30**)*

Regressions Predicting Each Risk Category (Standardized Betas)

	Ethical	Investment	Gambling	Health/ Safety	Recreational	Social
Sex (M = 0, F = 1)	.04	-.16	-.09	-.27**	-.09	.15
Adolescent Invulnerability	.27*	.12	.22*	.17^	.20^	.05
Optimism Bias	-.09	.04	.10	-.12	.03	.01

Conclusions

In this study, we sought to evaluate two related research questions. First, is adolescent invulnerability (AI) synonymous with optimism bias (OB), as previously suggested? Second, if not, which is most predictive of adolescent risk behaviour.

To investigate these questions, we evaluated the relationships between AI, OB, and different categories of risk behaviour. Using correlations, we found that AI was linked to ethical, investment, gambling, health/safety, and recreational risks. OB was only marginally related to gambling risks. In addition to the modest correlation between AI and OB, this suggests that these are overlapping *but not synonymous* constructs. However, given the significant correlation between the constructs, we sought further evidence for the second question using multiple regression analyses. These results suggest that AI was still at least a marginally significant predictor of four of the six categories, unique of the influence of OB or sex. OB failed to uniquely predict any risk category. This further suggests that AI is more closely associated with adolescent risk-taking than OB.

Our study suggests three avenues for future research. First, further research is needed to evaluate whether these different risks are equally applicable to the emerging adulthood/adolescent sample. Second, it would be of interest to evaluate the relationship between AI and OB longitudinally, particularly in a high-school sample. Third, it is of interest for future research to evaluate what predicts social risk-taking in adolescence.

For more information, visit www.nd.edu/~dlapsle1

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