



Taking risks for the best: Maximizing and risk-taking tendencies

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At a glance

Research question	In risky decisions, how is maximizing related to risk-taking tendencies when people choose between “the best option” (with the highest expectation) and “the best outcome” (potentially offered by the highest upper bound)?
Method	<ul style="list-style-type: none"> Maximizing was measured by the maximization scale. Risk-taking tendencies were measured by the general risk propensity scale and preference for options. Expectations of options were manipulated by EVs (Harman, Weinhardt, & Gonzalez, 2018).
Key Results	<ul style="list-style-type: none"> Maximizing is positively correlated with risk-taking tendencies when the options had similar expectations. Such correlation was reduced when expectations between options were clearly different.

Motivation and predictions

Motivation	<ul style="list-style-type: none"> The core of maximizing: aspiration for high standards. Whether the goal of seeking the best applies to expectations or outcomes? <ul style="list-style-type: none"> The expectation normatively identifies the best option (with clearly high EVs) in risky decisions, which are preferred regardless of maximizing (Cokely & Kelley, 2009; Harman, Weinhardt, & Gonzalez, 2018). Individuals who aim for the best results are sensitive to the upper bound and take more risks to seek the best outcome provided by a risky option (Lopes, 1987; Zou, Scholer & Higgins, 2014).
Hypotheses	<ul style="list-style-type: none"> If the available options provide clearly different expectations, risk-taking will not be correlated with maximizing (People tend to prefer the option with the highest expectation). If different options provide similar expectations, risk-taking tendencies will increase with maximizing.

Study 1: General risk-taking tendencies

<ul style="list-style-type: none"> N = 281 participants. Maximizing: Maximization scale (Schwartz et al., 2002). Risk-taking tendencies: The general risk propensity scale (Zhang, Highhouse & Nye, 2019). 	<ul style="list-style-type: none"> Results: Maximizing was positively related to general risk-taking tendencies, $r = .63, p < .001$.
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Study 2: Options with similar expectations

<ul style="list-style-type: none"> N = 472 participants. Design: single-factor (positively or negatively framed) between subjects design. Maximizing: Maximization scale (Schwartz et al., 2002). DV: preference for options (1 = Program A, 7 = Program B). 	<ul style="list-style-type: none"> Scenarios: <table border="1"> <tr> <td>[Positive framing]</td> <td>[Negative framing]</td> </tr> <tr> <td>If Program A is adopted, 200 people will be saved.</td> <td>If Program A is adopted, 400 people will die.</td> </tr> <tr> <td>If Program B is adopted, there is a 1/3 probability that 600 people will be saved, and a 2/3 probability that nobody will be saved.</td> <td>If Program B is adopted, there is a 1/3 probability that nobody will die, and a 2/3 probability that 600 people will die.</td> </tr> </table>	[Positive framing]	[Negative framing]	If Program A is adopted, 200 people will be saved.	If Program A is adopted, 400 people will die.	If Program B is adopted, there is a 1/3 probability that 600 people will be saved, and a 2/3 probability that nobody will be saved.	If Program B is adopted, there is a 1/3 probability that nobody will die, and a 2/3 probability that 600 people will die.
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	<ul style="list-style-type: none"> Results: For every step on the 7-point maximizing scale, the risk-taking tendencies went up by 0.32 units on the 7-point scale, $b = 0.32, t(469) = 3.03, p = .003$. 						

Study 3: Ruling out the uncertainty-seeking

<ul style="list-style-type: none"> N = 325 participants. Note: Both options were uncertain and had similar expectations. DV: preference for options (1 = Program A, 7 = Program B). 	<ul style="list-style-type: none"> Decisions: <table border="1"> <thead> <tr> <th>Decision</th> <th>Expected value</th> <th>Option A(Less risky)</th> <th>Option B(Riskier)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>50</td> <td>[40, 60]</td> <td>[0, 100]</td> </tr> <tr> <td>2</td> <td>100</td> <td>[80, 120]</td> <td>[0, 200]</td> </tr> <tr> <td>3</td> <td>200</td> <td>[160, 240]</td> <td>[0, 400]</td> </tr> <tr> <td>4</td> <td>400</td> <td>[320, 480]</td> <td>[0, 800]</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Results: A positive correlation between maximizing and risk-taking tendencies was found, $r = .21, p < .001$. 	Decision	Expected value	Option A(Less risky)	Option B(Riskier)	1	50	[40, 60]	[0, 100]	2	100	[80, 120]	[0, 200]	3	200	[160, 240]	[0, 400]	4	400	[320, 480]	[0, 800]
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2	100	[80, 120]	[0, 200]																		
3	200	[160, 240]	[0, 400]																		
4	400	[320, 480]	[0, 800]																		

Discussion

- Maximizers pursue both the best option (identified by expectation) and the best outcome (identified by the upper bound of an option). When options clearly differ in expectation, they prefer the best option. When options have similar expectations, they take risks for the best outcome.
- We provide a possible explanation for the inconsistent relationship between maximizing and risk-taking tendencies in the literature.

Study 4: Similar vs. dissimilar expectations

<ul style="list-style-type: none"> N = 915 participants. Design: 2 (domain: gain vs. loss) × 2 (expectation: dissimilar vs. similar) between subjects design. DV: preference for options Note: Expectations of options were manipulated by EVs. 	<ul style="list-style-type: none"> Decision sample: <ul style="list-style-type: none"> Results: An interaction between maximizing and expectation was found ($b = 0.24, t(907) = 2.19, p = .029$). Risk-taking tendencies increased with maximizing when expectations were similar ($b = 0.22, t(409) = 2.49, p = .013, R^2 = .015$). This trend disappeared when the expectations clearly differed ($b = 0.01, t(501) = 0.17, p = .869$).
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References

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