

BACKGROUND

- The *relative state model* suggests 2 pathways to risk-taking → **Need-based** and **Ability-based**.³
- Need-based pathway:
 - People engage in risk-taking because they are in greater need compared to others.
 - In this case, an individual's goal state is unlikely to be achieved through non-risky means.
 - Therefore, individual will engage in risk for a *chance* to reach their goal state.
 - E.g., poor individual stealing food
 - Wide literature supports this pathway to risk.⁴
- Ability-based pathway:
 - People engage in risk-taking because they have greater abilities compared to others.
 - Ability in a certain domain makes one more likely to be "successful" in risk-taking in that domain.
 - Therefore, individuals with these abilities engage in risk-taking because they are more likely to reap greater rewards.
 - E.g., experienced rock climber climbing difficult mountain
 - Very few studies examining this pathway to risk.⁵
- Embodied capital** are traits inherent to the individual that offer a competitive advantage (e.g., intelligence, attractiveness, strength).⁶
 - These may increase risk attitudes in certain domains.

Can embodied capital indices predict domain-specific risk attitudes?

METHODS

Participants

- Participants were 120 M, 116 F recruited from a small Canadian city using posters ($n = 236$). Average age was 29.62 ($SD = 12.34$).

Embodied Capital Indices

- Left-Right Body Symmetry → Greater symmetry is indicative of developmental health and associated with attractiveness.^{7,8}
- Minor Physical Anomalies (MPA) → More MPAs are indicative of developmental instability, fewer MPAs are associated to attractiveness.^{8,9}
- Attractiveness → Higher scores = more embodied capital.
- Body Mass Index (BMI) → Lower scores = more embodied capital.
- Intelligence → Higher scores = more embodied capital.
- Ambidexterity → Those with more ambidexterity are theorized to have an increased fighting ability.⁸

Risk Attitudes

- Domain-Specific Risk-Taking Scale (DOSPERT-30; Ethics, Investment, Social, Recreational, Health/Safety, Gambling)*

ETHICAL RISK ATTITUDES

EC (MPA and body symmetry) predicted variance in ethical risk attitudes, when accounting for demographics.

	B	SE	β	t
Step 1 Demographics: $R^2 = .17^{**}$				
Step 2 EC: $\Delta R^2 = .08^{***}$				
Attractiveness	.57	.46	.23	1.23
Body Symmetry	-2.73	1.10	-.16	-2.48*
BMI	.08	.08	.08	.99
MPA	.50	.23	.16	2.18*
Intelligence	.34	.24	.10	1.42
Ambidexterity	-1.30	.82	-.11	-1.59

* = $p < .05$, ** = $p < .01$, *** = $p < .001$; EC = Embodied Capital; Demographics: age, sex, relationship status, education, personal income, household income, number of children; BMI = Body Mass Index, MPA = Minor Physical Anomalies

INVESTMENT RISK ATTITUDES

EC did not predict investment risk attitudes when accounting for demographics.

	B	SE	β	t
Step 1 Demographics: $R^2 = .15^{**}$				
Step 2 EC: $\Delta R^2 = .04$				
Attractiveness	.05	.27	.03	.20
Body Symmetry	-.03	.71	-.003	-.05
BMI	.03	.05	.05	.56
MPA	.26	.14	.14	1.90
Intelligence	.27	.16	.12	1.75
Ambidexterity	-.38	.52	-.05	-.73

** = $p < .01$; EC = Embodied Capital; Demographics: age, sex, relationship status, education, personal income, household income, number of children; BMI = Body Mass Index, MPA = Minor Physical Anomalies

SOCIAL RISK ATTITUDES

EC (intelligence and ambidexterity) predicted variance in social risk attitudes, when accounting for demographics.

	B	SE	β	t
Step 1 Demographics: $R^2 = .11^{**}$				
Step 2 Embodied Capital: $\Delta R^2 = .08^{**}$				
Attractiveness	.08	.32	.04	.25
Body Symmetry	-.40	.85	-.03	-.47
BMI	.06	.06	.08	.94
MPA	.03	.17	.01	.15
Intelligence	.61	.19	.22	3.23**
Ambidexterity	-1.42	.63	-.15	-2.28*

* = $p < .05$, ** = $p < .01$; Demographics: age, sex, relationship status, education, personal income, household income, number of children; BMI = Body Mass Index, MPA = Minor Physical Anomalies

RECREATIONAL RISK ATTITUDES

EC (attractiveness and ambidexterity) predicted recreational risk attitudes when accounting for demographics.

	B	SE	β	t
Step 1 Demographics: $R^2 = .22^{***}$				
Step 2 EC: $\Delta R^2 = .06^{**}$				
Attractiveness	1.06	.51	.35	2.07*
Body Symmetry	-1.50	1.29	-.07	-1.16
BMI	.009	.09	.08	.10
MPA	.09	.26	.02	.33
Intelligence	-.04	.28	-.01	-.15
Ambidexterity	-1.96	.95	-.13	-2.06*

* = $p < .05$, ** = $p < .01$, *** = $p < .001$; EC = Embodied Capital; Demographics: age, sex, relationship status, education, personal income, household income, number of children; BMI = Body Mass Index, MPA = Minor Physical Anomalies

HEALTH/SAFETY RISK ATTITUDES

EC (elevated MPA) predicted health/safety risk when accounting for demographics.

	B	SE	β	t
Step 1 Demographics: $R^2 = .14^{**}$				
Step 2 EC: $\Delta R^2 = .06^{**}$				
Attractiveness	.39	.49	.14	.78
Body Symmetry	-1.80	1.24	-.09	-1.46
BMI	.16	.09	.15	1.79
MPA	.52	.25	.15	2.09*
Intelligence	.25	.27	.06	.93
Ambidexterity	-.32	.91	-.02	-.35

* = $p < .05$, ** = $p < .01$, *** = $p < .001$; EC = Embodied Capital; Demographics: age, sex, relationship status, education, personal income, household income, number of children; BMI = Body Mass Index, MPA = Minor Physical Anomalies

GAMBLING RISK ATTITUDES

EC did not predict gambling risk attitudes when accounting for demographics.

	B	SE	β	t
Step 1 Demographics: $R^2 = .08^*$				
Step 2 Embodied Capital: $\Delta R^2 = .04$				
Attractiveness	-.005	.24	-.004	-.02
Body Symmetry	-.60	.64	-.06	-.93
BMI	.06	.05	.13	1.38
MPA	.16	.13	.10	1.24
Intelligence	-.13	.14	-.06	-.89
Ambidexterity	.31	.47	.05	.66

* = $p < .05$; Demographics: age, sex, relationship status, education, personal income, household income, number of children; BMI = Body Mass Index, MPA = Minor Physical Anomalies

Competitive advantage may increase asocial/prosocial risk-taking if advantage is relevant to risk domain. On the other hand, the need-based pathway may increase antisocial risk-taking, regardless of domain.