

Hypothesis: Germans are more risk-averse than India, China and Albania

Importance: Societies are shaped differently due to a combination of historical, cultural, geographical, economic, and political factors. These large differences also influence every individual's personal life as well. To minimise loss and maximise growth and development, societies are said to be more risk-averse.

Risk preferences affect our personal choices and decision-making. It results in different lifestyles and socio-economical scenarios. It also shapes public health care and well-being.

Studying the differences in choices regarding risk factors or probable risk-taking behaviours between Germany and countries like China, India, and Albania can provide insights into the attitudes of different nationals towards risk. It may help to understand how societies are shaped based on these attitudes shedding light on the role of cultural factors, and economic implications, and providing insight into the psychology of decision-making behaviours.

Several factors can contribute to the attitude towards risk in countries like China, India, and Albania compared to Germany. Economic factors like lower income levels in these countries may make it difficult for individuals to afford a safety net. Cultural norms and beliefs regarding risk and related behaviour vary across regions. Government policies also affect economic stability and innovation. They may not be as developed or supportive in countries like China, India, and Albania.

State-of-the-art: Previous studies have been done about risk aversion in terms of financial investments (Huber, P., & Nowotny, K. 2020). In addition, there have been studies about the health risk attitude and its association with health care (Lutter, Johanna I., et al. 2019).

Research Gap: There have been studies done about risk-taking worldwide (Falk et al. (2018). However, the study is outdated and does not include data on countries like Albania (as observed from the graphs in the article).

The hypothesis talks about a particular belief about a certain society. We are interested in testing the same against data.

Q.1 If the likelihood of risk-taking behaviour correlates with nationality. Hypothesis: Germans are more risk-averse than the other tested nationalities (Albania, China, India)

Q.2: Validity:

1. Construct validity: The questionnaire will ask questions about willingness to take personal risk, which will then be combined into a risk score, thus measuring risk-aversiveness.

2. Internal validity: No obvious confounder for now.
3. Statistical validity: for the rule of thumb of having at least 10 replicates per predictor. We will have to have at least around 100 participants.
4. External validity: We don't expect confounders, as it's unlikely that things like age or gender interact with nationality. But we will still be asking for age and gender, in case there is an interesting interaction.

Q3: Draft for the analysis plan: regression in the form “risk-aversiveness ~ nationality + gender + age”

Q4: Plan for data collection: Turn the questions into an online questionnaire, and send it to people from Germany, Albania, China, and India.

Experimental Design: Questionnaire

Q.1: What is your nationality?

Q.2: What is your gender?

Q.3: How likely are you to take a job with higher pay but on another continent?

Q.4: How likely are you to trade stocks with equal chances of loss and gain?

Q.5: You are given 100 euros to invest. Where will you invest?

Safe fund with guaranteed, but much lower outcome

Risky fund with uncertain outcome, that has the potential to be very high

Q.6 How willing are you to taste food that you have never tried before that also smells unusual?

Q.7: What is your age?

Q.8: You will flip a coin that has a side A and side B. But you do not know which side is A or B. Depending on the result you can win or lose some money.

Decide which of the 3 Options you want to play.

Option 1. A: win 10\$. B: win 10\$.

Option 2. A: win 26\$. B: win 2\$.

Option. A: win 42\$. B: lose (!) 6\$.

Q.9 You will flip a coin that has a side A and side B. But you do not know which side is A or B. Depending on the result you can win or lose some money.

Decide which of the 3 Options you want to play.

Option 1. A: win 16\$. B: win 16\$.

Option 2. A: win 32\$. B: win 8\$.

Option. A: win 48\$. B: win 0\$.

You will now play a game 4 times. Each time you play the game you can choose to play Option A or Option B. You will roll a 6-sided dice and the number will decide if you lose or win.

Option A:

if you win you get 2\$. If you lose you get 1.6\$.

Option B:

if you win you get 3.85\$. If you lose you get 0.1\$.

Rows

Columns

You win if you roll a 1.

Option A

Option B

You win if you roll a 1 or 2

You win if you roll a 1, 2 or 3.

You win if you roll a 1, 2, 3, 4 or 5.

Q11. You will play an unusual lottery.

The lottery gives you a sheet with 100 numbers on them. You can cross out as many of them as you like. Of the 100 numbers, 99 are worth 10 cents each. After crossing out the numbers you like, you will get paid the money.

But there is a catch!

Exactly one of the numbers is the 'bad luck number', if you cross it out you will not receive any money. But you will only find out which number is the 'bad luck number' afterwards.

How many numbers will you cross out?

(Please only write a number between 1 and 100, not the specific ones you would cross out!)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100