

INVESTIGATING GENDER DIFFERENCE IN FINANCIAL RISK TAKING

ABSTRACT FOR ACE

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Abstract: Risk taking behaviours are central to financial decision makings and there are sizeable findings suggest that men are more risk-prone than women. It is convenient to think of the biological differences between women and men, so can they also shape our risk attitudes? Further, hormones play a key role in forming and regulating the biological differences. In recent literature, digit ratio (2D:4D) has been found to be negatively correlated with prenatal exposure to testosterone, while face width-to-height ratio (fWHR) to be positively correlated with pubertal exposure. The two ratios can be considered as the proxies of testosterone exposure. On the other hand, financial decisions are frequently made under time pressure. However, little is known about the gender differences of financial decision makings under time pressure. The interactions between gender and the effect of hormones, or time pressure have never been explored.

In our experiment, participants were asked to finish risk elicitation tasks with three time pressure sessions: without any time constraints, 8 seconds and 4 seconds constraints. Then photographs of participants' faces were taken and their right hands were scanned as measurements of 2D:4D and fWHR. We built up structural models under Expected Utility and Rank-Dependent Utility theories to estimate participants' risk attitudes and further correlate their risk attitudes with the two proxies.

We found that: (1) there is no overall gender difference on risk attitudes from our experiment; (2) male participants with more testosterone exposure are more likely to make riskier decisions; (3) under extreme time pressure, participants of both genders have more risk-averse attitudes, more cognitive insensitivity of probability and more optimistic views of the extreme payoffs; (4) under extreme time pressure, male subjects with higher testosterone exposure have more risk-seeking attitudes, more distortion of probabilistic interpretation and more optimistic view of extreme payoffs; the associations are found opposite for females participants. These results suggest that under the influence of elevated testosterone (exposure) and time pressure, women are more prudent than men. The gender difference of risk attitudes lies in their gut feelings of financial prospects.