Acute stress alters individual risk taking in a time-dependent manner and leads to anti-social risk

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We investigated the role executive function – as assessed by a cognitive test (CAT) – may play in modulating the effects of stress on risk behavior. We found that CAT scores correlate with increased risk aversion both in standard risk and anti-social risk conditions (Table S1). Additionally, as we had a significant difference in trait anxiety between our control and stress groups, we examined whether trait anxiety modulated the effects of stress on risk behavior. As shown in models 3 and 4 in Table S1, we found no significant effects of anxiety or interactions on risk behavior.

| Estimated coefficient | CAT analysis | Anxiety analysis |
|----------------------|--------------|-----------------|
|                      | Standard risk aversion | Anti-social risk aversion |
|                      | (1) | (2) | (3) | (4) |
| Stress               | -.21* | -0.11 | -.553* | -0.3 |
| Timing               | 0.088* | 0.158*** | -0.084 | -0.03 |
| Cat                  | 0.029** | 0.034** |  |  |
| Anxiety              |  |  | -0.005 | -0.07 |

**Interactions**

|                      | Standard risk aversion | Anti-social risk aversion |
|----------------------|------------------------|--------------------------|
| Stress X Timing      | 0.07**                 | 0.018                    |
| Stress X Cat         | -0.001                 | 0.000                    |
| Timing X Cat         | -0.009*                | -0.012*                  |
| Stress X Anxiety     | 0.006                  | 0.003                    |
| Timing X Anxiety     | 0.003                  | 0.003                    |

| Constant              | 0.39***                | 0.35***                  |
| R Squared             | 0.13                   | 0.15                     |

Table S1. Individual differences in cognitive ability and trait anxiety on risk taking. Regression models examine the effects of cognitive ability test performance (CAT) and trait anxiety on risk and anti-social risk aversion. Significance is indicated by asterisks at the p< *.05, **.01, and ***.001 level.
We also investigated whether our main results still hold when including age, sex, cat and personality as covariates.

### Table S2: test of robustness of main results when including a various set of covariates

Regression models examine the effects of stress and timing on standard risk and anti-social risk game. Significance is indicated by asterisks at the p< *.05, **.01, and ***.001 level.

|               | Model | Standard Risk | Standard Risk | Anti-social Risk | Anti-social Risk |
|---------------|-------|---------------|---------------|------------------|------------------|
|               |       | (1)           | (2)           | (3)              | (4)              |
| Stress        |       | -0.23***      | -0.241***     | -0.11            | -0.149           |
|               |       | (0.072)       | (0.073)       | (0.08)           | (0.088)          |
| Timing        |       | 0.02          | 0.0173        | 0.07***          | 0.066            |
|               |       | (0.016)       | (0.016)       | (0.02)           | (0.02)           |
| Stress X Timing |     | 0.07**        | 0.074**       | 0.018            | 0.03             |
|               |       | (0.023)       | (0.023)       | (0.03)           | (0.028)          |
| Covariates    |       |               |               |                  |                  |
| Age           |       | 0.0014        |               | 0.0047           |                  |
|               |       | (0.004)       |               | (0.005)          |                  |
| CAT           |       | 0.012***      |               | 0.013**          |                  |
|               |       | (0.004)       |               | (0.004)          |                  |
| Anxiety       |       | 0.0003        |               | -0.0014          |                  |
|               |       | (0.001)       |               | (0.001)          |                  |
| Male          |       | -0.011        |               | 0.016            |                  |
|               |       | (0.022)       |               | (0.026)          |                  |
| Honesty       |       | -0.0019       |               | 0.000            |                  |
|               |       | (0.001)       |               | (0.002)          |                  |
| Emotionality  |       | 0.0028        |               | 0.004*           |                  |
|               |       | (0.002)       |               | (0.002)          |                  |
| Extraversion  |       | 0.0024        |               | 0.003            |                  |
|               |       | (0.002)       |               | (0.002)          |                  |
| Agreeableness |       | 0.001         |               | 0.0014           |                  |
|               |       | (0.002)       |               | (0.002)          |                  |
| Conscientiousness |   | 0.003         |               | 0.0018           |                  |
|               |       | (0.002)       |               | (0.002)          |                  |
| Openness      |       | -0.002        |               | -0.0027          |                  |
|               |       | (0.002)       |               | (0.002)          |                  |
| Constant      |       | 0.615***      |               | 0.605***         | 0.188            |
|               |       | (0.034)       |               | (0.171)          | (0.040)          |
| R Squared     |       | 0.09          | 0.177         | 0.12             | 0.184            |