Hypothesis 3: Consequences of Person-Environment Mismatch

Two ANCOVA Models (controlling for age, sex, education, and experimental condition)

Hypothesis 4 - Mediation Model

Multiple Regression Models (controlling for age, sex, education, and experimental condition)

High control beliefs were significantly associated with better memory performance. Moreover, this association was mediated by the level of state anxiety assessed before the control manipulation and memory testing.

Results

Model 2: DV= Word List Recall Delayed: However, irrespective of the experimental condition, those with high control beliefs performed better on the word recall task. Those with high control beliefs in the low control condition, even though more physiologically reactive, were resilient and performed as well as their high control counterparts in the normal condition.

State Anxiety

Memory

Model 1: DV= Self-rated Control During Driving

Consistent with our expectations, the stress reactivity is higher in those with high control beliefs in the low control experimental condition.

Conclusions

- Sense of control can be experimentally manipulated using a driving paradigm, with similar effects across adulthood.
- These situationally-induced effects on control were moderated by pre-existing control beliefs.
- Those with high control beliefs in the low control condition were more physiologically aroused.
- However, this did not interfere with their subsequent memory performance.
- The effect of control beliefs on memory was consistent across ages and experimental conditions.
- Supporting the idea that high general control beliefs provide a positive context for memory performance.
- The association between control beliefs and memory was mediated by state anxiety.
- Those who have higher control beliefs are less likely to report anxiety, and in turn have higher memory performance.

Future Perspectives

- In future work we will look at heart rate and alpha asymmetry assessments of sympathetic nervous system (SNS) activity and try to understand how different systems (HPA & SNS) and self-report data come into play to facilitate or inhibit memory performance under different conditions of control.

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