Introduction: Previous research on an individual’s vulnerability to the anticipation of regret, referred to as regret proneness, has shown that there is a significant correlation between regret proneness and self-reported cognitive failures. The purpose for the present study was to examine working memory as a possible moderating variable of this relation. Additionally, we examined other factors such as, personality and metacognitive responsiveness that may be related to regret proneness and decision making.

Method: Regret proneness was measured using a regret proneness scale (RPS) created by Washburn (2003) and inspired by Gilovich and Medvec (1995). The cognitive failure questionnaire (Broadbent, Cooper, FitzGerald, & Parkes, 1982) was used to measure attention and memory failures, and a serial-probe recognition task was used as a direct measure of working memory. Meta-cognitive responsiveness was measured by a psychophysical uncertainty-monitoring task. Personality was assessed using an adjective checklist reflecting the "Big-5" personality dimensions. Target detection rate in a threat/non-threat security-screening task was used to assess one’s decision-making skills.

Results: Regret proneness was significantly correlated with the conscientiousness personality dimension ($r = .254, p < .01$) and metacognitive responsiveness ($r = .38$), but working memory did not moderate the relation between regret proneness and cognitive failures or other variables. Regret proneness was unrelated to target-detection accuracy, but this decision-making measure was related to metacognitive responsiveness ($r = .38$) and self-reported cognitive failures ($r = -.19, p < .01$). Multiple regression models accounted for about 9% of the variance in threat/no-threat decision making.

Conclusion: The findings for the study suggest that the ability to be aware of one’s own uncertainty, but not one’s anticipated emotion, may affect decision making and that individuals who are conscientiousness display more vulnerability to the anticipation of regret. The results also suggested changes to the RPS instrument, and a RPS-revised questionnaire has been created and tested.