

Metacognition fact,
had not, brings some
influence into



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Metacognition is the idea of “ cognition about cognition”, or consciously thinking about our cognitive processes (Flavell, 1976). The origins of this concept lead back to the Greek philosopher Aristotle (384 – 322BC), but was officially labelled by American developmental psychologist, John H. Flavell (1976). He used this idea to study the knowledge and cognitive awareness of children. The “ Raven’s Progressive Matrices” or RPM, first developed by J. C. Raven (1936), provided a nonverbal evaluation of intelligence through assessing participants’ visual reasoning. The current research presents to the participants a revised version of the RPM (Raven & Court, 1998), examining the extent metacognitive evaluations influence participants’ underlying performance.

Flavell divides metacognition into two separate components: metacognitive knowledge and metacognitive experiences (Livingston, 1997). Since metacognition focused primarily on metacognitive abilities as they develop with age (Cary & Reder, 2002), Flavell’s study aimed to identify how different aged subjects monitored their cognition while in social settings (Flavell, 1979), with the results suggesting older participants with developed cognitive knowledge are more effective in monitoring their metacognition compared to younger children. However, more recent work has observed that although cognition tends to improve with age, children as young as 3-5 are able to understand their cognitive behaviours at a very simple level (Whitebread, Coltman, Pasternak, Sangster, Grau, Bingham, Almeqdad and Demetriou, 2009). RPM tests are independent of language, reading and writing skills. This practical application approach spread quickly and was used for many purposes, e.

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g. acting as an entrance test to the armed forces and military services. The findings from RPM study suggested that improvements in performance reflected learning, as individuals learned to apply strategies depending on the situation (Kahneman, Slovic and Tversky, 1982). Previous studies on metacognition and RPM testing concluded that as the cognitive system develops, individuals become more aware of their cognitive processes, thus affecting performance levels. In the current study, we use these conclusions combined with the factor of confidence to test the extent to which task performance is impacted due to metacognitive evaluations, also known as reactivity.

In Flavell's experiment (1979), the situation where participants who thought they had accurately memorised a set of material but in fact, had not, brings some influence into the current study where the effect awareness has on underlying performance is tested. A recent study used error monitoring to compare the distinction between metacognitive judgements of decision confidence and error likelihood (Yeung and Summerfield, 2012), and another examined if reactivity would alter the decision process (Petrucci and Baranski, 2003). Previous research is lacking in connection between confidence evaluation and reactivity. It has been suggested that there is an impact upon performance, but to what extent is something that has yet to be established.

The current experiment design examines reactivity, set out in three groups in which participants rated their confidence while performing cognitive tasks (RPM). The current study draws upon the factors of Flavell's experiment (1979), assessing how confident participants were about their response to the <https://assignbuster.com/metacognition-fact-had-not-brings-some-influence-into/>

material, while incorporating the decision alteration aspects of Petrusic and Baranki's research (2003). However, instead of using error likelihood present in Yeung and Summerfield's study (2012), the current study questions the participants' likelihood of correctly answering a question. The expectation is that if the idea of 'confidence' was primed, an improvement would be seen in the RPM results compared to performing the task without any metacognition awareness.