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**Category**
Cognition and Action

**Project title**
Task structure and cognitive control

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**Project details**

Our previous work (Farooqui and Manly, 2019) has demonstrated a set of interesting apparently non-volitional phenomena when people perceive themselves as beginning a new task (even if the task is, in fact, a continuation of the same activity). These include clearing out representations/rules etc. from the previous task and a time cost in preparing for the new episode that pays off in terms of enhanced cognitive control. There are many important basic questions including whether these effects generalise to other tasks, the length of episode over which such planning can operate, neural correlates/dynamics of these preparatory acts and whether, for example, a perceived change in context similarly triggers the creation of a new ‘task episode’. Many mental health conditions are characterised by intrusive thoughts unrelated to (and unhelpful to) a current goal and it is of interest to investigate whether the creation of discrete task boundaries is useful in reducing this interference. Adaptive features of segmenting activity into discrete ‘task episodes’ raise interesting questions about whether these processes are compromised by brain injury and whether this provides useful additional accounts of features such a distractibility, goal neglect and perseveration as well as offering potential new targets for training.