Abstract. The ability to generate, narrate, and understand stories allows humans to accomplish tasks they would otherwise find difficult or impossible. We draw on observations of human narrative to identify a number of capabilities underlying the narrative faculty that we assert must be integrated into any cognitive architecture intended to achieve human-level performance. In particular, we identify sequencing, gap-filling, and plot pattern extraction as key capabilities, and detail two systems under development in our research group that unify a number of cognitive functions to achieve those abilities, functions including multi-representationalism, dynamically-produced commonsense knowledge, and analogical reasoning. Interestingly, in humans, the narrative faculty is intimately tied to cultural transmission and understanding. We speculate that culture is, in fact, a necessary cognitive resource (akin to commonsense or the lexicon), and that any cognitive architecture intended to achieve human-level performance will need to have a ‘culture’ of its own.

Keywords. Narrative, Plot Patterns, Knowledge Representation, Commonsense Knowledge, Culture, Cognitive Architectures

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