

**Wildfire Management Decision Making – Fast and Slow:
A systems framework for wildfire management research**

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The multi-scalar nature of wildland fire phenomena - from heat exchange between fuel particles to interactions between fire and the global climate and biogeochemical systems – is reasonably well known. Fire management decision making is also multi-scalar, ranging from daily near- real time decisions at the incident level to medium/long term, national and international decision making. Researchers attempting to address practical fire management problems need to decompose the fire management system into meaningful decision spaces to develop tractable and appropriate analytic and predictive models. This poster presents a simplified conceptual framework for fire management decision-making based on the Canadian experience that I have found useful to frame and explain research on management problems and “how things hang together”. We surmise that as the time available for decision making decreases, there is increased use of intuitive and recognition primed decision making and less reliance on rationale decision processes informed by predictive models – Kahneman’s so-called “thinking, fast and slow” construct. When researchers develop analytic solutions to problems that are being addressed with ‘System 1’ thinking, uptake can be slow or even fail because thinking fast is valued and ingrained in the fire management culture. This outcome contributes to an inherent tension between research and management communities. To develop more effective solutions, researchers need to not only advance the science but better understand how fire managers and fire fighters actually make decisions in boardrooms, response centres and on the fire ground.