

Mental Models in Naturalistic Decision Making

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The logo for the MITRE Technology Program, featuring a stylized graphic of stacked blocks in yellow, orange, and blue to the left of the text.

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The MITRE logo, consisting of the word "MITRE" in a bold, black, sans-serif font inside a white rectangular box.

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Problem

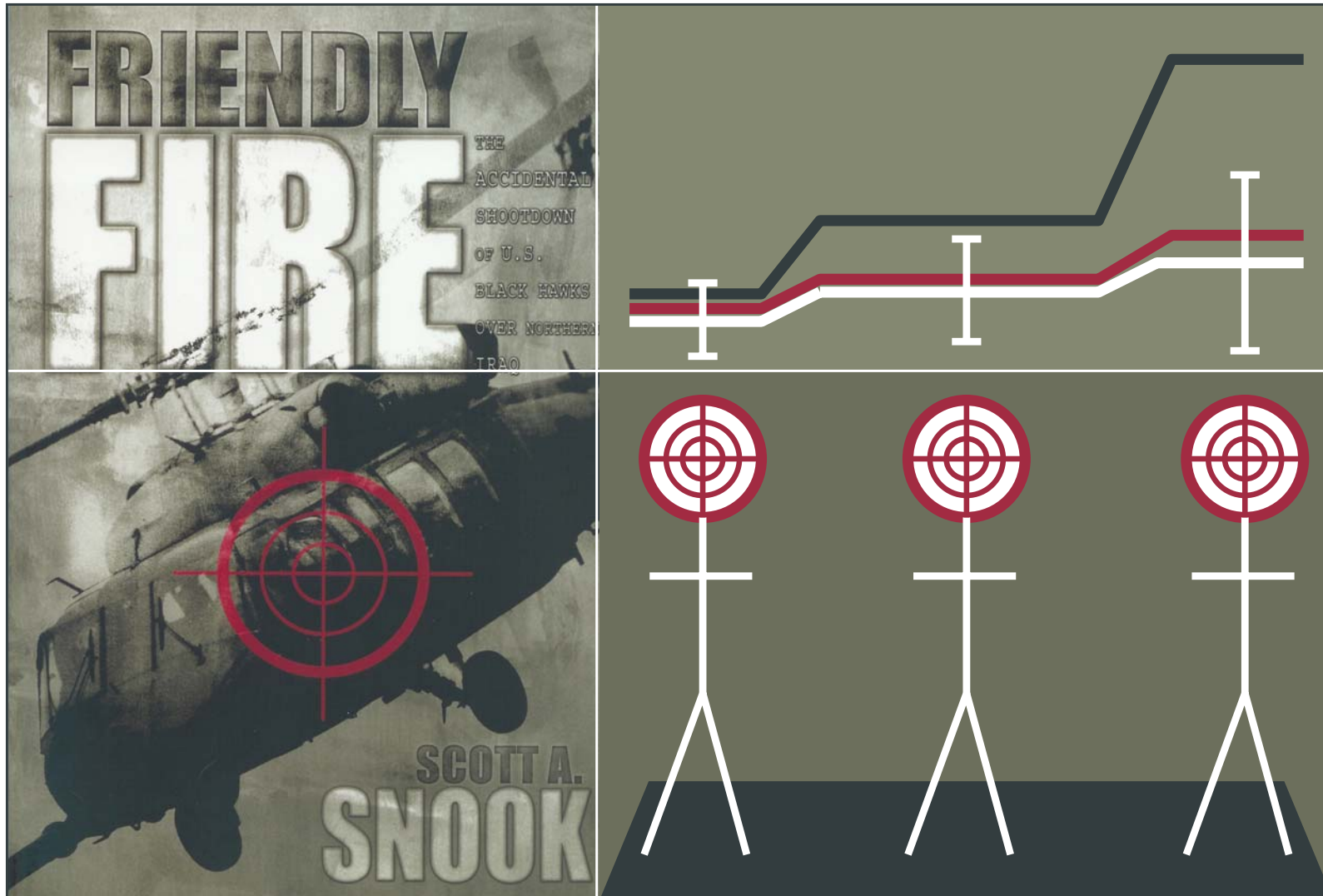
Decision Making

blinded by the squawk
eagle striking his prey hind
kills a friendly hawk

Belief and Inference

robin in shadow
sings a slow and somber song
is breast red or blue

Background



Objective

Reducing the Fog

desert storm heats up
fire melts sand clouds down to glass
windows on the ground

Decision Support

in a maze of screens
lines connect the numbered dots
so mouse can track cheese

Activities

Visual Thinking

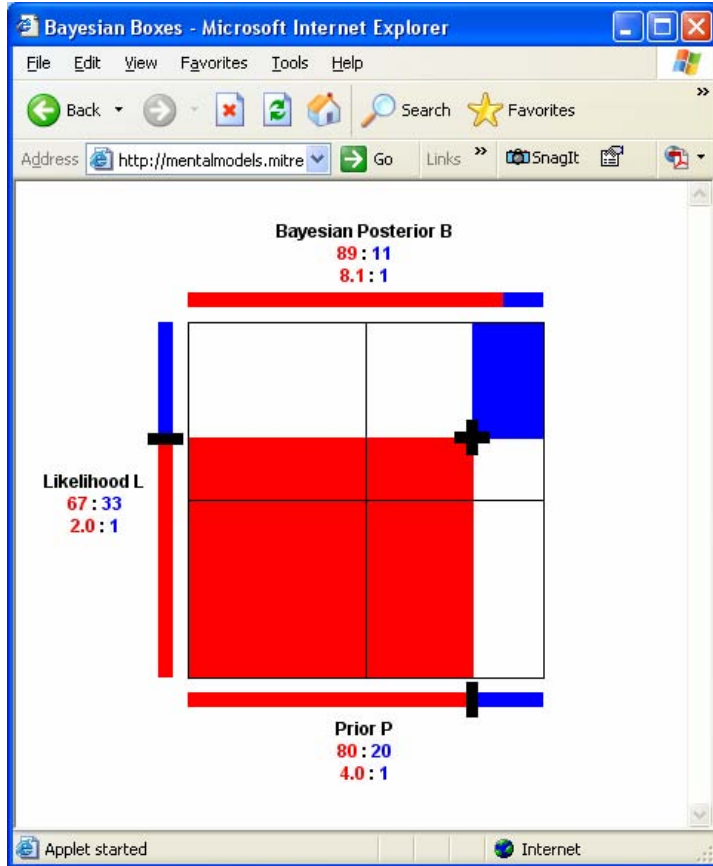
red and blue ink flow
through the arteries and veins
gray matter unfolds

Targets and Timing

bees ordered from hive
sting bears at measured moments
how does queen decide

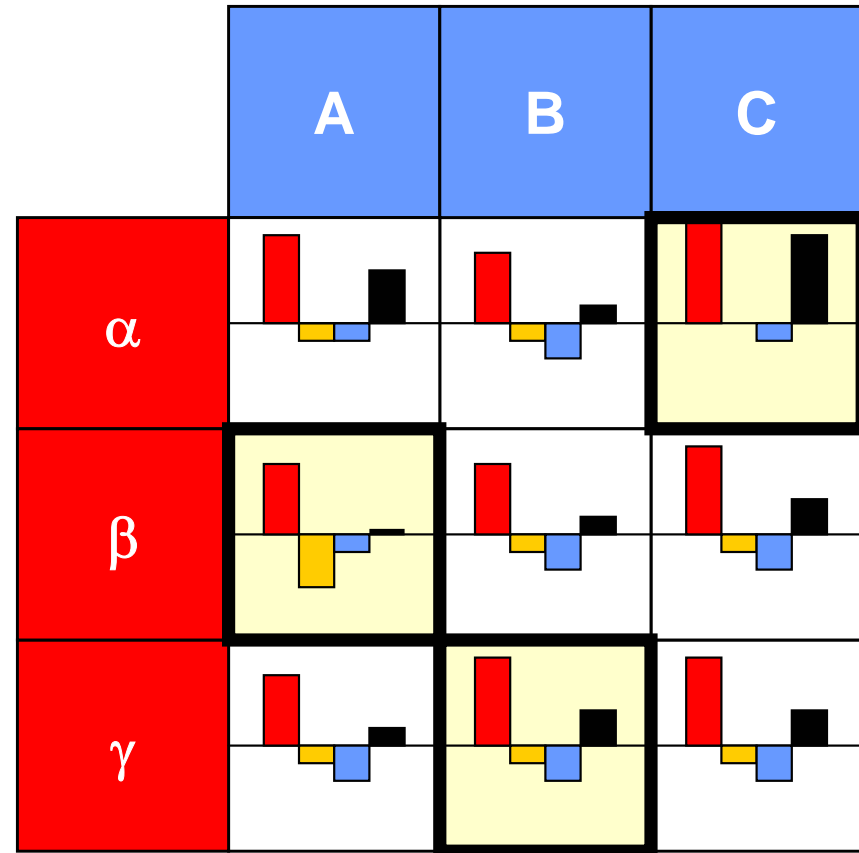
Highlight

Bayesian Boxes



Target Development

Bar-Gain Boxes

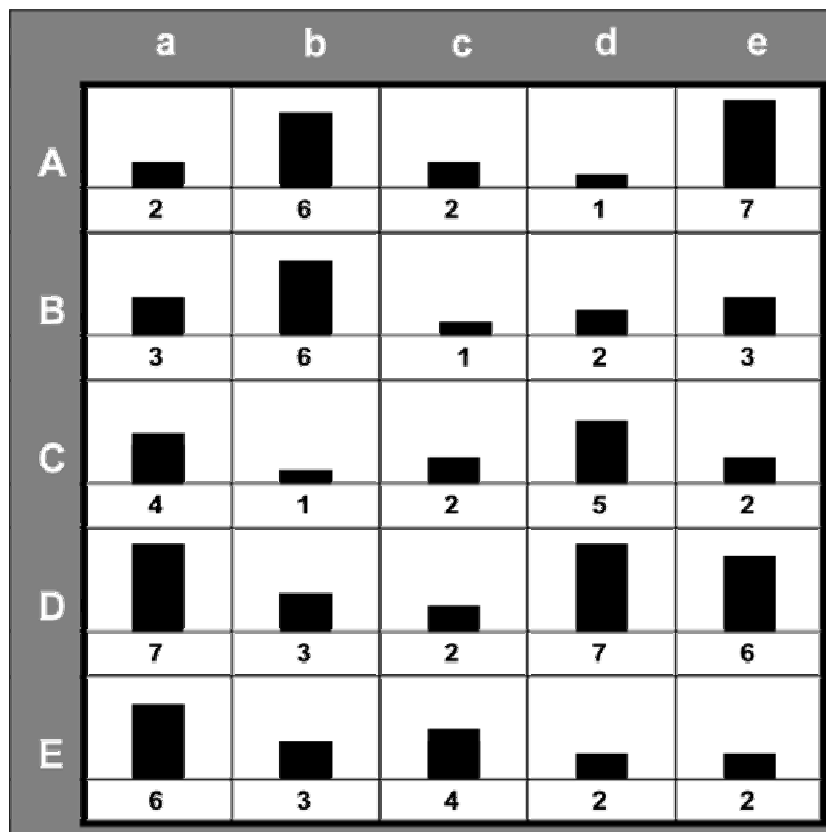


Weapon-Target Pairing

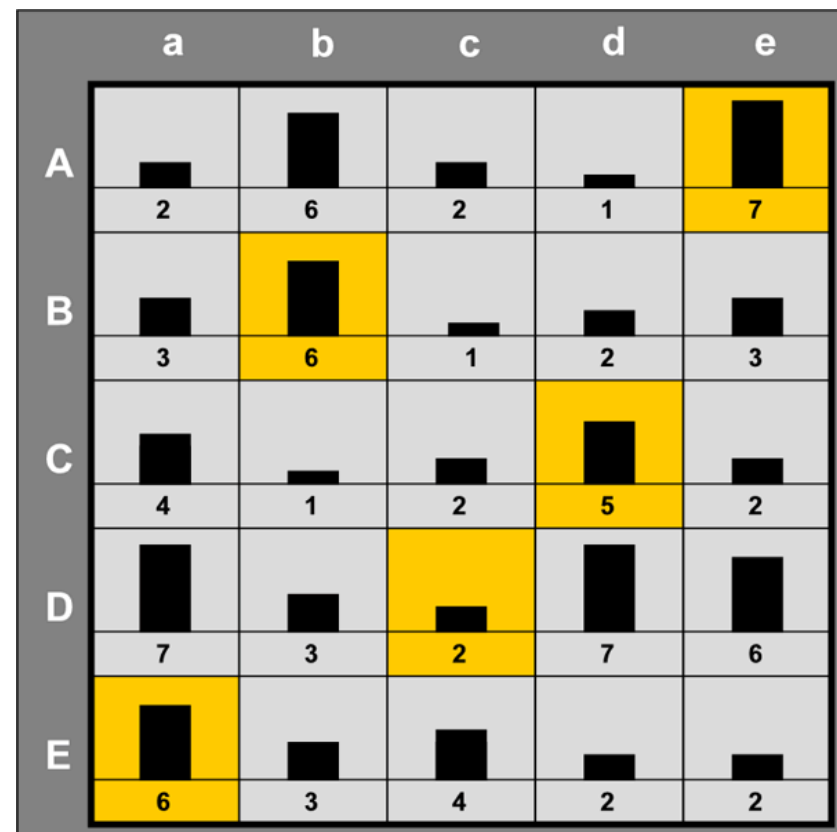
Demonstration

Tictac Tank: Pick highest bars in fastest time

Start



End



Impacts

Academic Ties

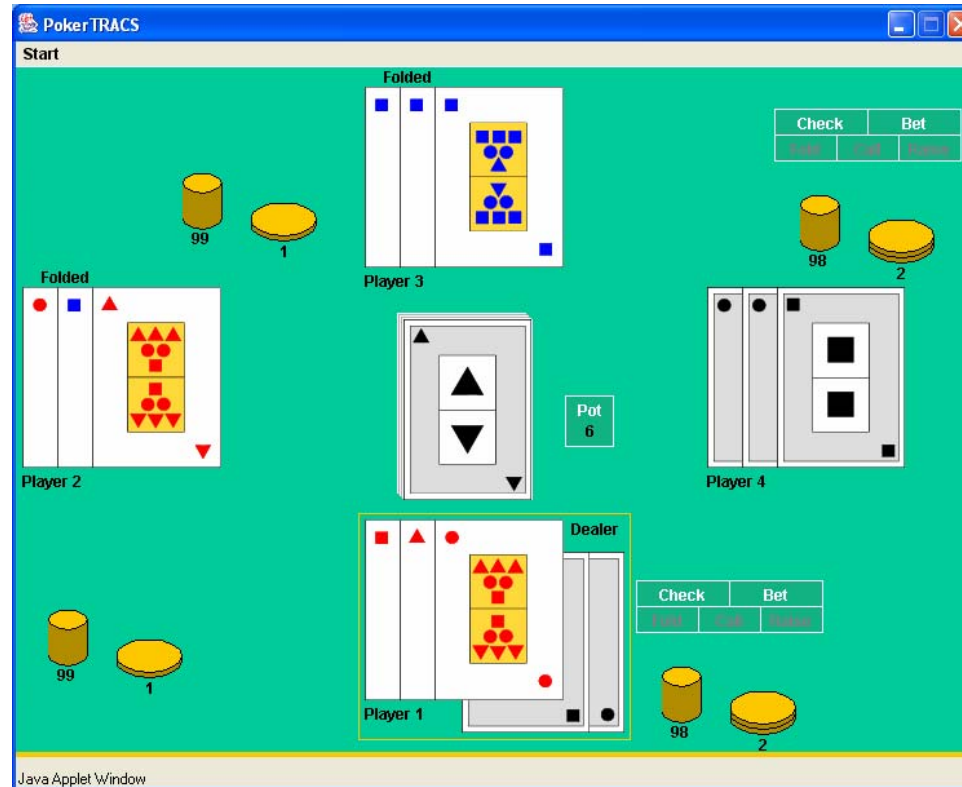
snakes hide in the grass
skins are spotted by a wise
owl who spins his head

On the Cutting Edge

tools in mitre box
shape angles for joint forces
squarely meet the ends

Future Plans

Command and Control with Cards and Chips



**squirrel holds the nuts
in fat cheeks that tell all hands
spoilng poker face**