Keeping the Story Straight: A Comparison of Commitment Strategies for a Social Deduction Game

Markus Eger and Chris Martens
{meger,crmarten}@ncsu.edu

Principles of Expressive Machines Lab
Department of Computer Science
North Carolina State University
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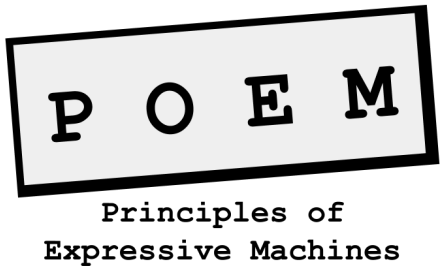

Basic scenario; no swapping of the Werewolf

Village \ Werewolf	r	c	b(0.5)	b(0.66)	b(0.8)	b(1)	b(1.25)	b(1.66)	b(2.5)	b(5)	f
random		89.73	89.95	89.6	90.18	90	89.48	89	89.55	89.38	88.43
capricious	0		48.78	49.65	50.1	50.13	50.63	49.78	49.88	49.75	
balanced(0.5)	15.03	49.58							48.53	50	49.63
balanced(0.66)	14.7	49.38			50.33	49.05					49.55
balanced(0.8)	15.08	49.18		49.33		49	51.78				50.3
balanced(1)	15.78	51.75		50.63	49.85		49.38	48.95			49.9
balanced(1.25)	15.5	50.7			49.15	50.15		50.08	50.2		49.83
balanced(1.66)	15.15	49.33				49.03	50.15		49.38	49.43	50.33
balanced(2.5)	15.3	49.43	50.25				50.58	50.05			49.78
balanced(5)	15.43	49.58	51					50.15			49.63
fanatical	14.75		51.23	50.3	48	49.35	49.18	51.13	49.6	49.45	

Basic scenario; optional swapping of the Werewolf

Village \ Werewolf	r	c	b(0.1)	b(0.2)	b(0.5)	b(0.66)	b(1)	b(1.33)	b(4)	f
random		55.6	56.3	53.8	54.2	53	57.2	54.7	55.2	40.1
capricious	27.4		48.9	51.3	50.1	48.7	46.9	52.1	49.7	
balanced(0.1)	30.7	48.7								48
balanced(0.2)	26.7	51.5								50.9
balanced(0.5)	29.6	51.4								50.4
balanced(0.66)	24.8	49.1								48.4
balanced(1)	29.1	49.7								48.3
balanced(1.33)	27.1	51.4								50.1
balanced(4)	29.1	48.9								49.3
fanatical	29.1		52	51.6	49.4	50.7	50.1	51.2	51.8	

Lopsided game

Village \ Werewolf	r	c	b(0.1)	b(0.2)	b(0.66)	b(2)	f
random	66.20	69.80	66.80	68.20	71.60	66.40	68.80
capricious	5.20	4.40	4.40	4.20	4.00	4.00	3.40
balanced(0.1)	6.20	3.00	4.80	3.80	4.40	3.80	3.00
balanced(0.2)	4.20	3.80	5.00	4.20	4.00	4.20	2.60
balanced(0.66)	1.80	3.20	3.40	3.80	2.60	3.80	3.00
balanced(2)	1.60	0.00	0.00	0.00	0.00	0.00	0.00
fanatical	1.20	0.00	0.00	0.00	0.00	0.00	0.00

Suspicious agents

Certainty	Werewolf balanced	Villagers balanced
0.1	1.6%	1.2%
0.3	2.8%	2.8%
0.5	4%	2.6%
0.7	0%	0%
0.9	0%	0%

Planning time