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## Agent-based support for behavior change

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# Appendix A

## Settings for the Scenarios in Section 4.5

Scenario 1			Agent 1	Agent 2	Agent3	Agent 4
q (initial state)	emotion	optionA	0.9	0.1	0.5	0.2
		optionB	0.1	0.1	0.5	0.2
		optionC	0.3	0.1	0.5	0.2
		optionD	0.1	0.1	0.5	0.2
	intention	optionA	0.9	0.7	0.5	0.1
		optionB	0.1	0.7	0.5	0.1
		optionC	0.1	0.1	0.5	0.1
		optionD	0.1	0.1	0.5	0.9
$\delta$ (openness)	emotion	optionA	0.1	0.9	0.9	0.2
		optionB	0.1	0.9	0.9	0.2
		optionC	0.1	0.9	0.9	0.2
		optionD	0.1	0.9	0.9	0.2
	intention	optionA	0.1	0.9	0.9	0.2
		optionB	0.1	0.9	0.9	0.2
		optionC	0.1	0.9	0.9	0.2
		optionD	0.1	0.9	0.9	0.2
$\eta$ (amplify/absorb)	emotion	optionA	0.9	0.1	0.2	0.9
		optionB	0.1	0.1	0.2	0.9
		optionC	0.9	0.1	0.2	0.9
		optionD	0.1	0.1	0.2	0.9
	intention	optionA	0.9	0.1	0.2	0.9
		optionB	0.1	0.1	0.2	0.9
		optionC	0.9	0.1	0.2	0.9
		optionD	0.1	0.1	0.2	0.9
$\beta$ (bias)	emotion	optionA	0.9	0.1	0.5	0.6
		optionB	0.1	0.1	0.5	0.6
		optionC	0.9	0.1	0.5	0.6
		optionD	0.1	0.1	0.5	0.6
	intention	optionA	0.9	0.8	0.5	0.6
		optionB	0.1	0.8	0.5	0.6
		optionC	0.9	0.1	0.5	0.6
		optionD	0.1	0.1	0.5	0.6
$\epsilon$ (expressiveness)			1	0.4	0.1	1
$\alpha$ (connection)		agent1	–	0.1	0.1	0.1
		agent2	1	–	0.9	0.1
		agent3	1	0.9	–	0.1
		agent4	1	0.1	0.1	–

Scenario 2			Agent 1	Agent 2	Agent3	Agent 4
q (initial state)	emotion	optionA	0.9	0.3	0.2	0.1
		optionB	0.1	0.3	0.1	0.1
		optionC	0.1	0.2	0.3	0.1
		optionD	0.1	0.4	0.2	0.8
	intention	optionA	0.9	0.3	0.3	0.1
		optionB	0.1	0.3	0.3	0.1
		optionC	0.1	0.2	0.4	0.1
		optionD	0.1	0.4	0.1	0.7
$\delta$ (openness)	emotion	optionA	0.1	0.8	0.9	0.3
		optionB	0.1	0.8	0.9	0.3
		optionC	0.1	0.8	0.9	0.3
		optionD	0.1	0.8	0.9	0.3
	intention	optionA	0.1	0.8	0.3	0.3
		optionB	0.1	0.8	0.3	0.3
		optionC	0.1	0.8	0.3	0.3
		optionD	0.1	0.8	0.3	0.3
$\eta$ (amplify/absorb)	emotion	optionA	0.9	0.5	0.2	0.7
		optionB	0.9	0.5	0.2	0.7
		optionC	0.9	0.5	0.2	0.7
		optionD	0.9	0.5	0.2	0.7
	intention	optionA	0.9	0.5	0.2	0.7
		optionB	0.9	0.5	0.2	0.7
		optionC	0.9	0.5	0.2	0.7
		optionD	0.9	0.5	0.2	0.7
$\beta$ (bias)	emotion	optionA	0.9	0.3	0.6	0.7
		optionB	0.9	0.3	0.5	0.7
		optionC	0.9	0.3	0.4	0.7
		optionD	0.9	0.3	0.5	0.8
	intention	optionA	0.9	0.3	0.6	0.7
		optionB	0.9	0.3	0.5	0.7
		optionC	0.9	0.3	0.4	0.7
		optionD	0.9	0.3	0.5	0.8
$\epsilon$ (expressiveness)			1	0.1	0.1	0.8
$\alpha$ (connection)		agent1	–	0.1	0.1	0.1
		agent2	1	–	0.1	0.1
		agent3	1	0.1	–	0.8
		agent4	0.1	0.1	0.1	–

Scenario 3			Agent 1	Agent 2	Agent3	Agent 4
q (initial state)	emotion	optionA	0.9	0.2	0.1	0.3
		optionB	0.1	0.9	0.1	0.3
		optionC	0.5	0.2	0.7	0.7
		optionD	0.2	0.2	0.1	0.1
	intention	optionA	0.9	0.2	0.1	0.1
		optionB	0.1	0.9	0.1	0.1
		optionC	0.5	0.2	0.9	0.9
		optionD	0.2	0.2	0.1	0.1
$\delta$ (openness)	emotion	optionA	0.5	0.1	0.9	0.3
		optionB	0.5	0.1	0.9	0.3
		optionC	0.5	0.1	0.9	0.7
		optionD	0.5	0.1	0.9	0.3
	intention	optionA	0.5	0.1	0.9	0.3
		optionB	0.5	0.1	0.9	0.3
		optionC	0.5	0.1	0.9	0.7
		optionD	0.5	0.1	0.9	0.3
$\eta$ (amplify/absorb)	emotion	optionA	0.9	0.5	0.2	0.8
		optionB	0.2	0.5	0.2	0.8
		optionC	0.2	0.5	0.2	0.8
		optionD	0.2	0.5	0.2	0.8
	intention	optionA	0.9	0.5	0.1	0.8
		optionB	0.2	0.5	0.1	0.8
		optionC	0.2	0.5	0.1	0.8
		optionD	0.2	0.5	0.1	0.8
$\beta$ (bias)	emotion	optionA	0.5	0.5	0.9	0.2
		optionB	0.5	0.5	0.9	0.2
		optionC	0.5	0.5	0.9	0.9
		optionD	0.5	0.5	0.9	0.2
	intention	optionA	0.5	0.5	0.9	0.2
		optionB	0.5	0.5	0.9	0.2
		optionC	0.5	0.5	0.9	0.9
		optionD	0.5	0.5	0.9	0.2
$\epsilon$ (expressiveness)			0.9	0.7	0.1	0.5
$\alpha$ (connection)		agent1	–	0.3	0.5	0.7
		agent2	0.1	–	0.5	0.5
		agent3	0.8	0.8	–	0.2
		agent4	0.6	0.5	0.2	–



**Settings for the Scenarios in Section 4.8**

<b>Scenario 1&amp;2</b>		Fear sc1 / sc2	Information high r, high p	Information low r, high p	Information high r, low p	Information low r, low p
<b>q (initial state)</b>	Agent1	0.1 / 0.8	1	0.1	0.1	0.1
	Agent2	0.1 / 0.8	0.1	1	0.1	0.1
	Agent3	0.1 / 0.8	0.1	0.1	1	0.1
	Agent4	0.1 / 0.8	0.1	0.1	0.1	1
<b><math>\delta</math> (openness)</b>	Agent1	0.5	0.5	0.5	0.5	0.5
	Agent2	0.5	0.5	0.5	0.5	0.5
	Agent3	0.5	0.5	0.5	0.5	0.5
	Agent4	0.5	0.5	0.5	0.5	0.5
<b><math>\eta</math> (amplify/absorb)</b>	Agent1	0.5	0.3	0.3	0.3	0.3
	Agent2	0.5	0.8	0.8	0.8	0.8
	Agent3	0.5	0.1	0.1	0.1	0.1
	Agent4	0.5	0.2	0.2	0.2	0.2
<b><math>\beta</math> (bias)</b>	Agent1	0.5	0.1	0.1	0.1	0.1
	Agent2	0.5	0.5	0.5	0.5	0.5
	Agent3	0.5	0.9	0.9	0.9	0.9
	Agent4	0.5	0.3	0.3	0.3	0.3
<b>Scenario 3</b>						
<b>q (initial state)</b>	Agent1					
	Agent2	0.3	0.1	0.8	0.1	0.1
	Agent3	0.9	0.1	0.1	1	1
	Agent4	0.1	1	0.1	0.1	1
<b><math>\delta</math> (openness)</b>	Agent1	0.2	1	1	0.1	0.1
	Agent2	0.1	0.1	0.1	1	1
	Agent3	0.7	0.5	0.5	0.5	0.5
	Agent4	0.6	0.1	0.1	0.1	0.1
<b><math>\eta</math> (amplify/absorb)</b>	Agent1	0.5	0.9	0.9	0.9	0.9
	Agent2	1	0.9	0.9	0.9	0.1
	Agent3	0.2	0.1	0.1	0.1	0.1
	Agent4	0.1	1	0.2	1	0.2
<b><math>\beta</math> (bias)</b>	Agent1	0.1	0.9	0.9	0.1	0.1
	Agent2	0.9	0.1	0.1	0.9	0.9
	Agent3	0.5	0.5	0.5	0.5	0.5
	Agent4	0.5	0.1	0.1	0.1	0.1