

Affordance Explanation:

General Affordance:

1. I set three empty game objects, and use Node_Goto() method to control an agent repeatedly move around these three points, then assert a leaf wait to let the agent wait one second when he reaches one point.
2. For one of the agents, I create an affordance so that he constantly changes his head looking direction towards one of the other agents.
3. For blue Daniel in our scene, I create an affordance in the way that first he will go to the proper location in order to pick up the ball on the box, then with holding the ball, he walks to red Daniel on the top side in the scene, and this is done via Node_Goto() function. Once blue Daniel get close enough with red Daniel, they first would turn their body towards each other by using Node_HeadLookTurnFirst(), then blue Daniel would threatens red Daniel by making some gestures using ST_PlayHandGesture() functions. Blue Daniel would also respond with cry and shock gesture.

IK Affordance:

1. For blue Daniel, I created a ball with interaction object script attached on it, so it can be interacted with the agent. Generally, blue Daniel would grab the ball at the beginning of the scene and walk towards to red Daniel. When getting close enough, blue Daniel drops the ball.
2. For two red Daniel at the lower half of scene, they repeatedly shaking their hands. This is done by creating two empty game objects and put them into proper locations and adjust their rotations. Then attach the interaction object script so that red Daniels can make animations that their hands stretch out to touch the game object. When both red Daniels are trying to touch the game objects, it looks like they are shaking hands.

Control Node:

We have create a control node that will randomly sequentially do N(input) child in a row, this case we can have more flexibility and randomness when the characters are interacting.

Behavior tree:

The behavior tree includes several parts, since there are many characters not interacting with each other, there will be several subtrees(sub-nodes). The user will have the ability to click on a button which will randomly select one of the three destination and have different ending.

