Evaluating Personality Trait Attribution Based on Gestures by Virtual Agents

Kris Liu

University of California, Santa Cruz, Santa Cruz, CA, United States

Jackson Tolins

University of California, Santa Cruz, Santa Cruz, CA, United States

Jean Fox Tree

University of California, Santa Cruz, Santa Cruz, CA, United States

Marilyn Walker

University of California, Santa Cruz, Santa Cruz, CA, United States

Michael Neff

University of California, Davis

Abstract: Can human-normed personality scales alone give us a full picture of the attribution of personality to virtual agents? In humans, personality traits are often immediately ascribed: first impressions, influenced by posture and gesture, can be strong, lasting and accurate. Is there a similar immediate attribution of personality for virtual agents that can be similarly influenced by posture and gesture? Our study uses an open-ended question alongside a traditional Big Five personality inventory to probe the perceived personality of agents programmed to demonstrate extroversion and emotional stability through gesture. Though inventory scores show that considered impressions are in line with the agent's intended personality trait, we also show a mismatch between initial and considered impressions in virtual agent personality perception. We suggest that first impressions derived from open-ended questions provide information complementary to the traditional personality inventory.