

**ABSTRACT.** This research is following Ecological Theory about the ability of humans to form impressions from observing the behavior of other people. The current study examined whether personality traits were related to the way in which people walked and moved to certain music. Twenty-one young females were asked to walk and to move to slow and fast music and to dance with a partner. Their movements were tracked with a MOCAP system which can produce coordinates of points on a moving body. A number of different measurements of body movement were produced and analyzed. Participants also completed the Big Five personality inventory. A number of trends were found in relationships between personality traits and gait and dance movement. Extroversion had the biggest influence. It was related to bigger and faster movements, especially with movements of head, hands, shoulders, hips or footstep. Openness to experience tended to have similar influence as extroversion. Neuroticism influenced slow dance the most. Agreeableness and conscientiousness had both positive and negative influence to a lesser extent. They influenced especially movements of hands, hips or footstep.