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Postural sway becomes spontaneously coordinated when two people converse

Supra-postural activity is known to influence the control of stance. Some studies have found that posture and supra-postural activity can be integrated in a functional way, such that stance supports the performance of supra-postural activities that have a perceptual component (e.g., Stoffregen et al., 2006, 1999). These effects are known to exist when supra-postural activity is controlled relative to the visible environment and, separately, when it is controlled relative to the environment of manual forces (Riley et al., 1999). We tested 12 pairs of undergraduate students from the University of Minnesota. 16 pairs of cartoon pictures were presented at eye-level to each pair where each person was only able to see their own picture. They were instructed to find as many differences between the two pictures by conversing with their partner by describing each one's picture to the other. A magnetic motion capture sensor attached at each participant's waist was used to measure postural sway. There were 16 trials total, each lasting 2 minutes. Half of the trials were done with the pair standing flat on the ground, and half were done with the pair standing on a mattress. The results replicated Shockley's study where the shared postural activity during dyadic conversation was reduced during stance on a non-rigid surface. Also, we found greater shared postural activity when participants were standing on the floor as compared to when they were standing on the mattresses.



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