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Interpersonal physiological linkage is related to excitement during a joint task

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Abstract

Interpersonal physiological linkage has been shown to play important roles in social activities. Studies have shown that people tend to share heart rate (HR) dynamics through a joint collaborative task. In this study, we investigated whether shared HR dynamics (i.e., HR synchrony) would correlate with excitement during a joint task. Two participants played a collaborative block-stacking game (Jenga), alternating their roles as player and adviser, while their HRs being recorded. The participants evaluated their own excitement for each turn. Additional bystanders watched their playing to evaluate the players excitement. The results showed that the players excitement increased with individual HR but also with HR synchrony. HR synchrony also affected the evaluation of players excitement by the bystanders. These results suggest that physiological linkage between cooperating individuals is related to the evaluation of excitement not only by player themselves but also by bystanders.

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