The Foot Position during Stepping Over the Gap between Trains and Platforms

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This study aims to clarify how passenger negotiates the gap between platforms and trains. In the laboratory, foot positions of 74 subjects were measured under various gap widths, step heights and train leaning conditions. The direction in which the subjects approached to the door was also considered. It was revealed that the positions of the foot on the train were constant but those on the platform were influenced by gap width and train leaning. It was also revealed that the foot became oblique to the gap and its length perpendicular to the platform edge decreased when the subjects walked along the train before boarding.