

Process of visual input does not decide the accuracy imitation performance

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Abstract: The associative sequence learning (ASL) model states that error patterns in observed actions during physical imitation and verbal description are identical, because of the critical role played by the process of visual input compared to the process after visual input. Action models were presented that comprised four elements: using right or left hand, using right or left stick, tapping right or left side of a box, and placing a stick on right or left side. In the condition in which identical elements of video stimuli and manipulated objects placed in front of participants had the same color, the colored element was correctly performed compared to the condition with different colored elements. However, colored element was not correctly performed in the condition in which particular elements of video stimuli were colored, whereas manipulated objects were not colored. These results suggest the important role of the process occurring after the visual input.