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PRESS RELEASE (2017/11/16)

The uncanny valley involves avoidance of novelty

-Toward a society in which androids and humans can live together-

A research team from Kyushu University including Kyoshiro Sasaki, a research fellow at the Faculty of Arts and Science (also at the Faculty of Science and Engineering of Waseda University and JSPS fellow), Associate Professor Keiko Ihaya of the Admission Center, and Associate Professor Yuki Yamada of the Faculty of Arts and Science has revealed a cognitive mechanism of eeriness evoked by the appearance of robots and dolls.

The appearance of robots and dolls becomes more familiar as their resemblance to humans increases. However, when their resemblance to humans has reached a certain point, they appear very eerie. This phenomenon is called the "uncanny valley." Previous studies revealed that people perceived eeriness when objects were hard to categorize. It was still unclear why difficulties in categorization led to eeriness.

The present study discovered that avoidance of novelty contributes to the eeriness of hard-to-categorize objects. In the experiment, the researchers asked participants to rate the level of perceived eeriness from 13 step-by-step images of a doll morphing into a human and measured their tendency to avoidance of novelty. The results showed that the perceived eeriness of hard-to-categorize objects became stronger as the tendency to avoidance of novelty increased.

In contrast to previous studies examining what is eerie, the present findings were produced by examining who strongly felt eeriness for hard-to-categorize objects. Thus, the present study should enrich our understanding of phenomena involving avoidance of novelty such as food neophobia and xenophobia.

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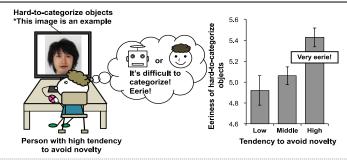


Fig. The relation between eeriness of hard-to-categorize objects and tendency to avoid novelty

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