

THE UNCANNY VALLEY EFFECT AND ITS MANIFESTATION IN MODERN CULTURE

The human brain is arguably the most complex organ, a complete study of which is still not possible. Science is still unable to unequivocally answer some questions about brain-related phenomena. For example, modern man is experiencing the “uncanny valley” effect far more often than his predecessors, and this is due to the development of technology. Movies, games and even robots have entered our lives, and they can cause this effect.

The “uncanny valley” hypothesis, which dates back to the 1970s, suggests that almost, but not entirely, human-like artificial characters evoke a profound sense of unease. This hypothesis has been widely accepted both in the popular media and in scientific research [3, p. 99].

The uncanny valley effect is a phenomenon in which something that strongly resembles humans, but is not, automatically arouses fear, disgust, and distrust in us. Thousands of years of evolution have embodied one unsettling feeling: “something is wrong here”.

The roots of the psychological understanding of this phenomenon can be found in the work of Sigmund Freud, who was one of the first to consider such a phenomenon in his article “The Uncanny”. Freud was the first to give his definition: “The uncanny is that which should have been concealed, but has revealed itself. This is how the uncanny is defined as that which we cannot say for certain whether it is alive or dead. To some extent, this can be identified as the cause of a profound sense of rejection in humans” [2, p. 619].

Still, the well-established name for the effect was given by the Japanese roboticist Masahiro Mori. In 1970, his essay “Bukimi No Tani” was published, and translated into English in 1978 as “Uncanny Valley”. Mori put forward the idea that

the more we try to make robots look like humans, the more repulsive they will become [3, p. 100].

In the article, Mori notes that people like his robots the more human-like they are. But this only works up to a certain point. If people see a humanoid robot, but something about it gives it away as unnatural, someone will start to dislike it. Reaching a section of the uncanny valley, robots can cause fear, panic, disgust, and anxiety.

The theory of perception contradicts it. The essence is that not everything non-human will be perceived negatively, everything depends on degree of similarity and distortion. Moreover, characters that periodically display human-like features will be perceived far worse than those that show these qualities continuously [3, p. 100].

The empathy hypothesis indirectly echoes Freud's theory, because according to it, androids cause us stress because something inanimate moves and imitates humans on its own. Though robots often look like humans, due to technical inaccuracies their movements can be slightly distorted (too abrupt or too slow), causing an underlying sense of rejection. The disrupted expectation hypothesis suggests that feelings of dislike arise when people look at a humanoid creature and expect to see typical actions, but what they see does not match their expectations [1, p. 372].

Despite a variety of theories to explain the sources of the “uncanny valley effect,” there is no single correct answer to this question at present. This is due to several factors: first, the varying sensitivity of people to the phenomenon described, and second, the small number of objective studies on the subject.

REFERENCES

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