論文の内容の要旨 Thesis Summary

Perception and Acceptability of Robots in the First Time Interaction

(ロボットの認識と心理的受容性に関する研究: 初対面の場において)

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Robots no longer belong to the world of science fiction – they are reality, and sooner rather than later, they will have a real impact on the way we live our lives. If robots are to coexist with people, then it is highly important that we investigate how people perceive and how they accept robots in their personal space when they first encounter them. Despite the display of advanced human robot interaction in popular culture, people are not yet interacting directly with them. This thesis focuses on the perception people form when they interact for the very first time with a robot. It explores how the robot's appearance and behaviours influence people's view of anthropomorphic social robots.

Four series of studies were conducted to investigate the details of human perception, attitude, and acceptability of robots in human robot interaction. First, the influence of a robot's appearance on people's assessment was evaluated by using four different types of robots, and found that participants assessed distinct robot types significantly differently. The second and third series then focused on the perception of two selected robot types, a humanoid and an android robot. This series also measured the level of trust shown towards the android robot with an economic trust game. The fourth series explored the influence of cultural differences on the

perception and trust of robots. The findings in this thesis highlight the necessity to quantitatively measure and understand the perception of robots and their acceptance in first time interactions. The results are discussed and can be used for future development in successfully integrating robots into our society.