Robot Friendship:
Can a Robot be a Friend?

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ABSTRACT

Friendship is used here as a conceptual vehicle for framing questions about the distinctiveness of human cognition in relation to natural systems such as other animal species and to artificial systems such as robots. By exploring this very common form of a human interpersonal relationship, the author indicates that even though it is difficult to say something generally true about friendship among humans, distinct forms of friendship as practiced and distinct notions of friendship have been investigated in the social and human sciences and in biology. A more general conceptualization of friendship as a triadic relation analogous to the sign relation is suggested. Based on this the author asks how one may conceive of robot-robot and robot-human friendships; and how an interdisciplinary perspective upon that relation can contribute to analyse levels of embodied cognition in natural and artificial systems.

Keywords: Embodiment, Friendship, Norms, Robot, Self, Semiotics, Social Cognition

INTRODUCTION

The question posed here is one about an aspect of human cognition and emotion that is often overlooked or ignored, namely friendship, and its possible instantiation in artificial systems such as robots. Can robots be friends? Probably for most people it seems a bit weird to suggest so, or to imagine that humans and robots can enter into interactive dynamics similar to friendship. The intuition that something would be missing for two artificial systems really to be ‘friends’ may well be right, but as always with intuitions in the context of research they need to be articulated, and articulating this intuition – or counter-claims that robots could not be friends – demands a deeper understanding of not only the specificities of human cognition, but also the relation between cognition and affection, and the nature of friendship. This article focuses on the later.

The claim of this paper is not that friendships between robots, or between humans and robots, are impossible. The suggestion is to keep the question – about possible future realizations of friendship in human-robot or robot-robot relations – open, and investigate more in detail what friendship among humans

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might tell us about similarities and differences between natural human cognition (including distributed cognition) and artificial robotic cognition. Friendship and social cognition in general has been seen as important for the development of an autonomous self in humans, and this may thus teach us something about human autonomy and agency. In the fields of Cognitive Science, Robotics, AI and Artificial Life, the focus has often been one of building adaptive systems intelligent enough to solve practical tasks such as survival, transforming sensory information into organized knowledge to guide movement, and learning instrumental skills needed for supporting human action and cognition. This kind of instrumental rationality and intelligence is important for individual actions in many technical domains, but may not be sufficient for all social actions in domains where values and norms play an important role. By asking questions about forms of human friendship and the possible existence or non-existence of robot friendship, we also ask what it means to say that rational purposeful human action in the social domain is guided by norms. Such norms are of a social character, they are expressions of self-control, and they regulate not just the action of isolated individuals, but emphatically social individuals, that is, individuals socialized through their development, like social organisms of other species, or like the ‘political animals’ (Aristotle) we are qua living in societies with social institutions.

The relevance of discussing friendship in the context of robots is far from being a novelty; this concern has appeared in the history of robotics, although nobody has offered an analysis of the meaning of ‘friendship’ in this context. Remember that robotics is not only a science, fundamental as well as applied, it is also a field hybridizing with science fiction. This is exemplified by the career of Mark Tilden, robot scientist, author and technical consultant on movie scenes involving robots.1 Part of Tilden’s claim to fame is his invention in the 1990s of what became known as “Tilden’s Laws on Robotics”, namely: 1) A robot must protect its existence at all costs; 2) a robot must obtain and maintain access to its own power source; 3) a robot must continually search for better power sources.2 This may not sound especially friendly, but more like rules for Hobbesian agents, all fighting against all. They were suggested as indicating new design principles for a more interactivist and embodied approach to robot architecture, provocatively echoing and subverting science fiction author Isaac Asimov’s “Three Laws of Robotics” from 1942,3 that were concerned with the dangers to humans of the construction of robots. Asimov’s laws stated that: 1) A robot may not injure a human being or, through inaction, allow a human being to come to harm; 2) a robot must obey the orders given to it by human beings, except where such orders would conflict with the first law; 3) a robot must protect its own existence as long as such protection does not conflict with the first or second law. These laws seem friendlier and they support an understanding that robots should basically serve as safe tools for humans. However, it is difficult to see Asimov’s second law about obedience as enabling anything like a real friendship to emerge, at least if we understand that relation as something between equal beings with a high degree of autonomy. This brief indication of a history attached to the debate about the nature of robot-human and robot-robot relations suffices to surmise that much attention has been paid to safety and utility issues, and much less to issues of deeper interpersonal relationship or true friendship.

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1. Mark Tilden, author of the career
2. Mark Tilden, author of the career
3. Isaac Asimov, author of the career

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