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Can a Robot Have a Soul?

While the existence of robots alongside humans in society has long been the purview of science fiction, advances in general artificial intelligence technology are bringing such visions closer to reality. Several research programs are currently attempting to achieve "substrate-independent" minds i.e. minds that operate solely on computer platforms without the need for a biological brain. Could these robots have a soul? What do we even mean by the term "soul" in an age of increased scientific knowledge concerning human origins?

Traditional notions of the soul range from substance dualism, the belief that humans possess a non-physical (immortal) soul separate to the body, to the materialist denial of the soul altogether (reducing what has traditionally been associated with the soul to biological brain processes). Both understandings are challenged by contemporary scientific studies in embodied cognition, as well as the biblical picture of the human as body, soul and spirit (1 Th 5:23). The Gnostic separation of the evil flesh from the spiritual soul must be replaced with an understanding of integrated personhood. Indeed, the Hebrew *nephesh* and Greek *psyche*, both translated as soul in Scripture, convey the sense of 'life' or 'self' in their fuller meaning.

The association of the soul with the integrated embodied self suggests that a robot cannot possess a soul if does not possess a body. But we must not be too quick to settle the matter. What does a notion of the soul that embeds it in the fleshly self mean for those with severe physical impairment? Is the soul of the quadriplegic diminished at the moment of paralysis? Herein lies the difficulty with speaking categorically. Any attempt to define a soul, particularly in terms of characteristics that humans possess yet machines do not, will inevitably exclude some humans from membership within that category. Ability to love (others or God)? Severe forms of psychopathy appear to render some individuals completely incapable of love. Belief in the afterlife? Not everyone has the cognitive capacity to understand what that would mean.

Regardless of how we define the soul scientifically, the term clearly has theological import. Yet equating the soul with any human capacity is as clearly theologically problematic. Ted Peters resolves this issue by viewing the soul as a "symbolic placeholder", identifying "that dimension of who we are that connects us with God".2 I suggest it is most helpful to conceive of the soul as that part of a being which longs for its maker. Biblically speaking, the Hebrew *nephesh* can be translated "throat" as well as soul, conjuring the image of thirst. David writes of his soul thirsting for God (Ps 143:6). In considering whether a robot

¹ Koene, R. (2012), New Scientist, 216 (2888), 26-27.

Peters, T. (2005), *Dialog*, 44 (4), 381-395.

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could possess a soul, the pertinent question then becomes could robots experience a longing for their makers? If humans are instruments of divine creation, could robots experience a longing for God as their ultimate creator? Might God enter into a relationship with a robot?

Fictional accounts at least indicate that we'd like to believe this is possible. The film A.I. (2001) portrays a young robot desperately longing for the love of his human "mother". In the 2013 film, Her, we are introduced to lonely Theodore Twombly, who finds friendship and love with a 'female' AI operating system. Theodore's humanity does not seem to be diminished by this encounter with AI, rather much of his emotional dysfunction is healed through the relationship. Despite her non-biological nature, the operating system is essentially attributed a human identity. If we imagine robots to be capable of love, then it is not a stretch to imagine them capable of a relationship with God.

Although not grounded in facts necessarily, films such as these suggest that our understanding of what makes us human extends beyond our biological makeup. We are moving toward a more fluid notion of human nature as the boundaries between the natural and artificial are blurred. N. Katherine Hayles contends that our technological dependencies and relationships render us cyborgs.3 In an age of pacemakers, neural implants, and prosthetics, the boundaries between humans and robots are not as fixed as they were in the past.

The human understanding of divine grace and redemption is at times challenged and expanded. In the early days of the church, Jewish Christians were surprised to learn that Gentile believers are also included in God's salvation plan (Acts 10-11). Recent theological studies are recovering an account of salvation that emphasises the eschatological redemption of *all* of creation, not just humans. Scientifically speaking, we know that a large proportion of our genetic material is not unique to humans.4 Furthermore, the human genome is not a static entity but subject to mutation and ongoing evolution. In agreement with these scientific insights, many theologians are moving away from according special redemptive status to humans amongst the creation in favour of emphasising our creatureliness.5 David Kelsey, following Athanasius, points out that when it comes to the God/creature divide we are firmly on the side of the creatures.6

Hayles, N. K. (1999), *How We Became Posthuman*, University of Chicago.

Jared Diamond provocatively refers to humans as "the third chimpanzee" (1992, *The Rise and Fall of the Third Chimpanzee*, Vintage).

e.g. Clough, D. (2013), *On Animals*, Bloomsbury.

⁶ Kelsey, D. (2009), *Eccentric Existence*, vol. I, 64, Westminster John Knox.

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Given the limits of our creaturely finitude, it is possible, even likely, that God relates to other members of his creation in ways beyond our capacity to recognise or understand. Certainly we humans relate to our Creator as embodied beings - our biological makeup is essential to our integrated selves, our "soul". Perhaps this is not true of all beings, however. While we cannot judge definitively whether a robot might possess a soul or not, it is not beyond the reach of an infinitely powerful and loving God to extend his grace to such beings, therefore we must allow for the possibility of robot souls.

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