CONFLICTS AT THE INTERFACE OF RELIGION AND SCIENCE
GENES, MACHINES AND HUMAN BEINGS

by Brock Heathcotte

What are the risks and benefits of changing human biology? This debate appears in contexts as diverse as steroid use in baseball to stem-cell research, from genetic selection and cloning to robotics and artificial intelligence.

While most people seem to agree that athletes should not be allowed to use steroids to enhance their physical capabilities, a new scientific and social movement has emerged to promote advanced technology not just for physical enhancement but also for intellectual, emotional and spiritual enhancement of the entire human species. This movement calls itself transhumanism, and a $500,000 grant obtained by the CSRC will support an interdisciplinary exploration of the social, legal, ethical and religious implications of the futuristic scenario that transhumanism promises.

The grant by the Metanexus Institute for the prestigious Templeton Research Lectures on the Constructive Engagement of Science and Religion funds an ambitious project titled “Facing the Challenges of Transhumanism: Religion, Science and Technology.” ASU was one of only two universities in the country to receive a Templeton Research Lectures grant this year.

“No serious discussion about the meaning of human life or the place of humans in the order of things can take place without considering the interplay of science and religion,” says Hava Tirosh-Samuelson, professor of history and leader of an interdisciplinary research team that includes faculty from physics, philosophy, life sciences, religious studies, engineering and law. “This project builds on two years of interdisciplinary work sponsored by CSRC. ASU is now poised to make substantial contributions by focusing on the most acute challenges to humanity brought about by new technologies.”

Examples of these new technologies include cybernetics and brain–computer interfaces that could allow people to become, literally, brain-powered machines, and gene–manipulation techniques that could be used to engineer new genetic components for ourselves.

How would these developments alter our concepts of self or of humanity in general? That and similar questions will be explored through a series of public programs, faculty seminars and work with graduate students, beginning this year with public lectures on the concept of human nature by world-renowned scholars Leda Cosmides and John Tooby and culminating in an international research conference in 2010.

“By bringing some of the world’s outstanding scholars to ASU for several weeks each year, ASU will become known as a place where cutting-edge dialogue on religion and science is taking place,” says CSRC Director Linell Cady. “This is a global dialogue, and we are fortunate that Cosmides and Tooby will be serving as Templeton co-Fellows this year. Their work is exemplary of how to approach even the most contentious issues civility and thoughtfully.”

Transhumanists point to such “founding fathers” as Benjamin Franklin and scientists J.B.S. Haldane and Julian Huxley as the inspiration for their movement. Both Franklin and Haldane saw in rapid scientific advancement the potential to cure all diseases. Huxley coined the phrase transhumanism in 1957, defining it as man transcending himself and developing a new human nature.

The unifying belief behind many contemporary transhumanist organizations is that humans can and should control the evolution of the human species. Achievements such as the Human Genome project, breakthroughs in cloning and robotics, and other technological achievements make such an idea appear possible. But, for many people outside those organizations, that concept is disturbing.

“Much of classical Western moral and political theorizing is based on the idea that people share an objective human good, which is determined by a shared human nature,” says Michael White, a professor of philosophy and law who is part of the project team. “It would be difficult to overestimate the moral and legal significance of consciously altering our human nature through technical means.”

What does the advent of transhumanism actually mean for human society? Current proponents believe advances in nanotechnology, robotics, artificial intelligence and genomics can be used to free humanity from disease, aging, poverty and hunger, while making all of us smarter, happier and more fulfilled with our lives.

Some critics have dismissed the transhumanist arguments as unrealistic hype and others, including religious opponents, are concerned their plans would lead to dehumanizing practices that could erode the moral fabric of society and the environment.

“The constructive engagement of science and religion is the most appropriate context in which to examine and evaluate the claims of transhumanism without recourse to nostalgia, naive optimism or doomsday scenarios,” says Tirosh-Samuelson. She believes that mutual engagement and understanding is acutely important in the 21st century.

“For the first time in history, human activity affects the most fundamental dynamics of almost all natural systems, from regulation of endangered animal species to managing the global nitrogen and carbon cycles,” says Tirosh-Samuelson. “Technology is the major mechanism by which human systems are integrated into earth systems, thus becoming a critical nexus by which religious and ethical values are integrated into such systems.”
Tirosh-Samuelson believes the Metanexus Institute funded the ASU project because it highlights the interface of various disciplines and is attentive to history, culture and social institutions.

“An interesting aspect of the debate over transhumanism is not only what should we do or not do, but what could we realistically stop if we wanted to,” says Gary Marchant, a professor in the School of Life Sciences and the College of Law who is also on the project team. “Are we doomed to technological determinism? Since law will be a central tool for determining what is and is not prohibited, part of this ASU project will focus on the legal capacity to enforce public sentiment about what ought not to proceed.”

Transhumanism is a 20th-century idea that may become a 21st-century reality. The full contour of social and government regulation of technology designed to change human biology has yet to be decided. The Center for the Study of Religion and Conflict, in collaboration with leading campus units, is committed to playing a proactive role in fleshing out many of the social, political and cultural issues arising from the transhuman challenge.