

Electrical stimulation and the anthropological "post-human" body: FES Sport

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Technology has always been used to extend human capability. However, controversy arises when medical risks are taken; non-invasive devices are usually positively received whereas invasive procedures or devices are negatively perceived. However invasive devices are generally accepted if they help to alleviate a disability. The theme of our conference is ES and the anthropological "post-human" body – a philosophical debate that centers around what it is to be normal and what role technology (engineering or genetic) rather than natural evolution should or will play in our future development. Although the debate has its origins in science fiction and futurology, the predictions may provide useful influence, perhaps even motivation, for the development of FES.

Adaptive sport and active lifestyle confer many health benefits – a fact acknowledged by Sir Ludwig Guttmann: "*... If I ever did one good thing in my medical career, it was to introduce sport into the treatment and rehabilitation of spinal cord sufferers and other severely disabled...*" Adaptive sport is also an area where the post-human debate recently sparked controversy in a legal battle with the International Association of Athletics Federation. Oscar Pistorius http://en.wikipedia.org/wiki/Oscar_Pistorius a South African bi-lateral amputee sprinter used Ossur 'Cheetah' prosthetic legs <http://www.ossur.com/?PageID=13008> to run as fast as his able-bodied competitors. However, he lost his bid to run in the 2008 Olympics because his prosthetic limbs were considered to give him an advantage over able-bodied opponents – i.e. "techno-doping". However, this was subsequently overruled by the Court of Arbitration for Sport and he has recently qualified for the World Championships and the London Olympics in 2012. The Cheetah are essentially passive mechanical springs and as such can be expected to be significantly improved on in the future – compare with SF predictions of cybernetic limbs. What about electrical stimulation and neural prosthetics? – these have, since Mary Shelly's Frankenstein, been cited in the posthumanist literature as a technical means to upgrade human physical and mental abilities?

Here I will continue the debate and discuss some of the potential therapeutic benefits of recreational activity and sport, many of which are just recently emerging, and FES enhanced sports in particular FES rowing – the technology, achievements to date with some speculation for the post-human future.