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Singularity Terrorism: Military Meta-Strategy in Response to Terror and Technology

Woody Evans
Assistant Professor and Librarian
Zayed University, Dubai, UAE
woody.evans@zu.ac.ae

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Abstract

This paper examines the responses to advanced and transformative technologies in military literature, attenuates the conclusions of earlier work suggesting that there is an "ignorance of transhumanism" in the military, and updates the current layout of transhuman concerns in military thought. The military is not ignorant of transhuman issues and implications, though there was evidence for this in the past; militaries and non-state actors (including terrorists) increasingly use disruptive technologies with what we may call *transhuman provenance*.

1. Tight scopes

In previous research, I found very little evidence of "transhuman terms" in military literature (Evans 2007). The terms *transhuman* and *posthuman* themselves appeared only 14 times in EBSCOhost's *Military & Government Collection* database. At the time, this database provided "cover-to-cover full text for nearly 300 journals and periodicals and indexing and abstracts for nearly 400 titles." The number of titles now indexed by the database is at 416, with an additional 288 other sources (speeches, reports, and unclassified or declassified government documents). Though the earlier research was tightly limited in scope, the lack of transhuman terms was nevertheless striking in the mid-2000s. This is in itself interesting and revealing (see Evans ibid. for full discussion).

Discussion of transhumanism and its related terms (artificial intelligence, augmented reality, and nanotechnology, for example) is more common in military sources now. In the above mentioned database, the same terms (*transhuman* and *posthuman*) appear as of Spring 2013 a total of 15 times (hey, it's progress!).

Web results are also lacking. For example, a search for the term "transhuman" and variants (transhumanism, transhumanist) on US military websites open to public view retrieves less than 100 results, including false-positives. "Posthuman" retrieves less than 30 results, after false-positives such as "off-post humans" and "contractor shall post: human trafficking hotline" (from an old report documenting materiel clean up in Colorado) are removed. Obviously the number of results changes over time, as new documents go up and old documents are taken down on military servers. Also, we can say nothing about the number of results on restricted military sites, because we are not allowed to see them.

It appears, then, that transhumanism remains a relatively minor concern in military literature (at least the literature available to the public, both on the open Web and in military-related periodicals); but the question of the role of transhumanism in military concerns deserves more than a one-dimensional investigation.

2. The science-fiction condition

One way into other dimensions of this investigation is the admission that military literature is brimming with discussions of advanced technologies that we may say have *transhuman provenance*; this is a way to express the idea that, although the technologies discussed may not be explicitly labeled as "transhuman," they are certainly inspired and advanced by a cultural push toward the *science-fiction condition*. As Warren Ellis put in a speech to the *Improving Reality* conference:

> We are summoning [the future] into the present. It's here right now. It's in the room with us. We live in the future. We live in the Science Fiction Condition, where we can see under atoms and across the world and across the methane lakes of Titan... If I were sitting next to you twenty-five years ago, and you heard a phone ring, and I took out a bar of glass and said, sorry, my phone just told me it's got new video of a solar flare, you'd have me sectioned in a flash.... Imagine telling someone just twenty five years ago about GPS. This is the last generation in the Western world that will ever be lost. LifeStraws. Synthetic biology. Genetic sequencing. SARS was genetically sequenced within 48 hours of its identification. I'm not even touching the Web, Wifi, mobile broadband, cloud computing, electronic cigarettes… (Ellis 2012)

Technologies such as real-time mapping, invisibility cloaks, augmented reality displays, and other tools derived from advanced personal/wearable computers have, for a generation now, been thoroughly grounded in the fictional tropes of cyberpunk, biopunk, post-cyberpunk, and other sub-genres of science fiction. Ellis brings home the point that we are completely surrounded by what would have been magic just a few years ago. When young men and women on patrol in Kandahar don advanced night vision gear, their cultural references for it are movies like *The Matrix* and books like *Virtual Light*. When militaries talk about invisibility cloaking in the 2010s or 2020s, they are talking about it within the inescapable context of what was science fiction only a generation ago. Take for example this passage from a 10 year old description of the EYEKON system:

> When the soldier employs [a] weapon, he should see objects easily distinguishable as friendly or not, as well as enemy locations. The Eyekon project is an intelligent agent-based decision support system hosted on the soldier's wearable computer. Eyekon will use the soldier's private network

> to provide a perspective view in the weapon sight. This will naturally draw the warrior to the most desirable target. (Hicks 2003)

And how far have we come in a decade? The company behind EYEKON, 21st Century Systems, Inc., continues to win Department of Defense contracts. The latest as of this writing was a 2012 award of over $360,000 to develop a way to mine and deliver actionable data to Army fleet logicians, and it won a number of contracts since 2003 related to augmented reality, such as the Navy's HiRSA project (SBIR/STTR 2013). Technology moves on, and the military and its contractors do not fall behind.

I say that there is a "transhuman provenance" to these technologies, partly because the science fiction of the last 30 years has been transhuman in its concerns (Geraci 2011; Raulerson 2010; Fletcher 2012). The term "transhumanity" dates to at least as early as 1978 in discussions of science fiction as a genre (Prucher 2006).

Transhumanism works now as an atmosphere in which the military understands and re-purposes advanced technologies: technologies make warriors more lethal by making tools more personal and useful. Accordingly, the evidence clearly points to an increasingly transhuman military; consider the occurrence of such terms as "augmented reality" in publicly viewable military websites alone. The term occurs nearly 1900 times, representing nearly 20 times as many occurrences as the term "transhuman" itself (excluding false-positives). To revisit that EBSCOHost *Military & Government Collection*, in 2013, we find that the term "artificial intelligence" occurs now 4,655 times. Biotechnology: 7,009 times. Nanotechnology: 2,070 times.

Clearly the military is not "ignorant of transhuman concerns" just because they don't use the term "transhuman" very often.

3. Fighting in a transitional world

The military as we know it today, however, began during earlier forms of social organization, though it has not remained merely an artifact of the 1870s or of the 1940s. As large traditional militaries struggle to adapt to today's non-state, asymmetrical, and networked targets, should we see the military's interest in technologies with transhuman provenance as evidence for its own transition into organizations that can respond to posthuman post-states? How will modern and future militaries become expressions of security in new kinds of social governance that might exist in a posthuman world?

Terrorism represents a threat to the traditional state, especially insofar as the traditional state is associated with expansion of economic, cultural, or geographical territories; as it was put (certainly as a warning) by Robert Pape:

> ... the close association between foreign military occupations and the growth of suicide terrorist movements in the occupied regions should give pause to those who favor solutions that involve conquering countries in order to transform their political systems. (2003)

His analysis of the "increasing tempo" of suicide bombings came during the ferment of debate after the invasion of Iraq. Iraq is a fair example, as it was a modern state before 2003. It is hardly a "traditional

state" that exists within the same geopolitical boundaries now – it is simmering and sometimes boiling from within with factions, terrorism, and counter-terrorism. Maybe we could call it a failing state, or a state *failing to thrive*.

If the military is an artifact of the state, then militaries must either co-opt or defang the tactics and strategies of terrorists in order to protect the state (and the military itself). Furthermore, if the military becomes an expression of new kinds of security apparatuses in a post-traditional state world, then terrorists *plus* transhumanism may provide a model for future versions of the military in so far as terrorism represents decentralized, highly-responsive / highly-aggressive, and networked cells rather than the staid and dictatorial hierarchies of centralized authority. If the military can co-opt such features while refraining from using the dark side of terrorists' strategies (attacks on civilians, public utilities), terrorism may *itself* be providing the models its enemies can use to destroy it.

It is not enough just for the military establishment to be aware of transhumanism and hope to use advanced technologies to disrupt terrorism to defend the state. Militaries must take on transhumanism as a toolkit for understanding geopolitical shifts – shifts which have given a surprising amount of power to poor, technologically inferior, and "disorganized" terror groups.

Transhumanism has an affiliation with, maybe even roots in, the "cybertopian" visions of a world interconnected with communications technologies for the common good. This is a naive and perhaps dead view of reality, now, but one that nonetheless informed the beliefs of many technologists who are now building the world we live in. The decentralization of their vision is an actionable good that militaries may take away in order to become the type of force needed to destroy non-state terrorist groups. Transhumanism represents new ways for militaries (and therefore states, if they are to survive) to understand the role of cheap, ubiquitous, powerful, and weaponizable technology in the hands of the everyday man. Transhumanism illustrates to militaries the power of distributed common technology, yes, but more than that it carries an ethos that anyone could (even if not everyone *should*) take up these tools for their own purposes.

I once heard a squadron commander in the Air Force describe the essential military mission as follows: "Our job is to kill people and break things." That is about as hard-boiled as you can get, I think. But in a posthuman future in which militaries assume positions and attributes previously held by eggheads very far from battlefields (transhumanists) and enemies willing to kill wantonly (terrorists), perhaps the essential military mission itself becomes less about Destroying the Things as it will be about Disrupting the Patterns. Every terror attack causes the patterns of traditional state business to be gravely (and potentially mortally) interrupted.

Can the same strategies and tactics, coupled with radically empowering and decentralized technologies, be put to use by militaries to similarly disrupt the patterns of terrorists themselves?

Probably.

References

Ellis, W. 2012. How to see the future.
http://www.warrenellis.com/?p=14314 (accessed August 7, 2013).

Evans, W. 2007. Singularity warfare: A bibliometric survey of militarized transhumanism. *Journal of Evolution and Technology* 16(1) (June): 161-165.
http://www.jetpress.org/v16/evans.html (accessed August 7, 2013).

Fletcher, S. W. 2012. Overcoming limitations: The rhetorical impact of science fiction on the transhumanism debate. Thesis, Wake Forest University.
http://wakespace.lib.wfu.edu/bitstream/handle/10339/37249/Fletcher_wfu_0248M_10237.pdf (accessed August 7, 2013).

Geraci, R. M. 2011. There and back again: Transhumanist evangelism in science fiction and popular science. *Implicit Religion* 14(2) (August): 141-172.

Pape, R. 2003. The strategic logic of suicide terrorism. *American Political Science Review* 97(3) (August): 343-361.

Prucher, J. 2013. Transhumanity. In *The Oxford dictionary of science fiction*, ed. J. Prucher. Oxford University Press.
http://www.oxfordreference.com/view/10.1093/acref/9780195305678.001.0001/acref-9780195305678-e-803 (accessed August 7, 2013).

Raulerson, J. T. 2010. Singularities: Technoculture, transhumanism, and science fiction in the 21st century. Dissertation, University of Iowa, 2010.
http://ir.uiowa.edu/etd/2968/ (accessed August 7, 2013).

SBIR/STTR. 2013. Agent-enabled logistics enterprise intelligence system (AELEIS).
https://www.sbir.gov/sbirsearch/detail/397207 (accessed August 7, 2013).