The Super Soldier: Implications for Super Leaders

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First Offset (1950s thru 1974) – President Eisenhower emphasized nuclear deterrence to offset the Warsaw Pact’s growing conventional capabilities.

Second Offset (mid 1970s thru 1989) – Department of Defense invested in precision-guided weapons, stealth technology, and space-based military communications and navigation to offset the Warsaw Pact’s numerical superiority in nuclear and conventional forces.

Third Offset (2014 - ?) – Department of Defense embarks on the Defense Innovation Initiative to develop advanced capabilities in the areas of:

- Autonomous learning systems (AI)
- Human-Machine collaborative decision-making
- Assisted / Augmented Human Operations
- Advanced manned-unmanned systems
- Autonomous weapons

(Courtesy Mr. Sam White - USAWC)
The Future Vision

• The Third Offset Strategy in Practice

• Sophisticated autonomous systems and cognitive support augmentation - integrated with the military forces (human) of the future.

• Appropriate and adaptive employment of those systems, in combination with the skills of the human is the key to optimizing and leveraging the individual strengths of both and the winning combination of the two.
The Future Operating Environment – Gen. Milley’s Vision

“Miserable, Disobedient & Victorious: Gen. Milley’s Future US Soldier”

- Local Action with Strategic Understanding
- Constant need for Innovation
- Isolation from leadership
- Disobedience of orders in the face of changing realities on the ground.

Super soldiers will indeed be necessary in such an environment, with a level of expertise and competence across the multiple domains

Without that level of performance, the vision outlined is the definition of Chaos, not Victory.
The Super Soldier - Cognitive Dominance

Increased Physical, Emotional and Intellectual Development

• Expanded cognitive awareness and processing capabilities.
• Augmented through physical modification or externally pre-processed information

The ultimate act of Cognitive Dominance: Decision Making Dominance.

BUT

Information does not equal knowledge or judgement

More information still does not equal knowledge or judgement
Cognitive Dominance

“Brain fitness is the state of cognitive, psychological and behavioral optimization which enables peak human performance”

“Peak performance” is a relative term - still limited by factors such as Fluid Intelligence and Level of Expertise –

The Expert Advantage includes:

◦ Highly elaborated knowledge structure (including related processes)
◦ Automated sub-conscious processing
◦ High-performing heuristics
◦ Increased levels of available attentional resources

Experience does not equal Expertise

Augmentation does not equal Expertise
An “Army of One”

- More rigorously selected
- Emotionally stable and resilient
- Superior physical condition
- More intelligent
- Better trained
- Augmented and supported by AI and Autonomous Systems

The SOCOM model - on steroids, applied across the spectrum?
Super Soldier - Super Army - Super Leader

In practice, the Army is a complex organization of highly synchronized and often specialized teams –

“An Army of cohesive teams of trusted professionals who adapt and win in a complex world”

Key terms: “cohesive teams” - “trusted” - ”adapt”

“WIN”
Super Soldier - Super Army - Super Leader

Teams - comprised of humans with differing levels/types of augmentation + fully autonomous, selectively or semi-autonomous systems

• How are such “Teams” built

• How are cohesion and trust achieved and employed

• How are such teams and the complex of teams that comprise larger units and ultimately the Army itself, successfully led?

What attributes define the Super Leader in this Super Army?
Strategic Super Leader

Current vs Future Required Attributes - Similar terms – New Definitions? e.g.,

• System of Systems Thinking / Strategic Thinking
• (Advanced) Team Builder / Human-Augmented Human-Multi-level Autonomous Systems
• Innovative / Adaptive
• Risk Taker / Redefining “Prudent”
• Effective in Uncertainty/Ambiguity
• Multi-Cultural Competence / Across Organizational – National and Ethnic cultures
• Cross-Domain Expertise/Near Expertise -
• Increased Technical Competence – Knowing when the technology is wrong

Is this list changing in Content, Definition and/or Priority
Way Ahead: Much Empirical Research Underway

**Strategic Cognition - Decision-Making Dominance**

- Empirically define the impact of a broad array of environmental (external) and internal, cognitive and related affective factors on the operational and strategic decision making processes of senior leaders today – Critical Incident Analysis and other methods
- Analyze and Project Future Leader Attributes
- Mapping Decision Factors to *Required* (not Desired) Future Attributes
- How will factors (internal and external) impacting Decisions change in future environment
- Decision challenge recognition and mitigation - exercise of sound situational judgment in complex environments.

**“Strategic Approach”** to the development of **“Strategic Super-Leaders”**