

• Advanced Critical Reading – Intelligence Augmentation

The terms “intelligence augmentation” and “intelligence amplification” evoke images of human beings with computer chips embedded in their skulls or bizarre accoutrements attached to their heads. However, according to an article entitled *Get Smart* by Jamais Cascio, human beings’ ability to augment their intelligence is precisely the prowess which has empowered us to survive “a series of convulsive glacial events” evinced by the last ice age.

Neurophysiologist William Calvin asserts that the human species continues to evolve cognitively and to create its own cognitive evolution in two basic ways: external and internal.

Cascio states that humans have been externally augmenting their intelligence for millennia. By developing written language, we boosted our capacity to share information over space and time. Other advancements, such as agricultural and industrial technologies, reduced the exigencies of manual labor. Current external digital systems augment human intelligence by allowing us to perform tasks that would be unfeasible with recourse only to the rational skills of a singular human brain. Cascio cites as examples the “powerful simulations and massive data sets (which) allow physicists to visualize, understand, and debate models of an 11–dimension universe, real–time data from satellites, global environmental databases, and high–resolution models (which) allow geophysicists to recognize the subtle signs of long–term changes to the planet,” and similar man–made interactions which have the functional effect of augmenting human intelligence. Conceivable potential software could incorporate individual “attention filters” or “focus assistants” which would discern and highlight your individual preferences in a computer display, permitting you to focus and direct your computer searches more efficiently than you do now. It could incorporate individualized planning and foresight systems which could allow people to play “what–if” with their life choices. Such systems could co–evolve with people to produce intimate technologies which would become “something akin to collaborative intuition,” through web–based information systems with personalized components, according to Cascio.

Somewhat more problematic in social terms might be pharmacological intelligence augmentation, evoking Brave New World nightmares – pharmaceutically placated people tranquilized to zombie–like subservience to the collective and a central bureaucracy dedicated to its own continued survival. However, as with external cognitive augmentation, the future has arrived — in the form of, for example, ADD drugs, pharmaceutical agents which mitigate sleep disorders, and antidepressants, all of which enhance human problem–solving ability and cognitive efficiency. According to Cascio, “people who don’t know about (such drugs) or don’t want to use them will face stiffer competition from people who do. From the perspective of a culture immersed in athletic doping wars, the use of such drugs may seem like cheating. From the perspective of those who find they’re much more productive using this form of enhancement, it’s no more cheating than getting a faster computer or a better education.”

Cognitive amplification, whether by external or internal means, may constitute evolution, if Calvin’s assertion is correct. Some societies may readily embrace it, while others may shy away. As science fiction writer William Gibson observes, “The future is already here; it’s just unevenly distributed.”

Questions

1. The author is mainly concerned about
 - A) various dangers of intelligence augmentation.
 - B) the advantages of intelligence augmentation.
 - C) the basic methods of intelligence augmentation.
 - D) some scientists who are working on intelligence augmentation.
 - E) the differences between external and internal intelligence augmentation.
2. The author's use of the phrase "somewhat more problematic in social terms" refers to
 - A) the difficulty of making cognitive enhancement widely available.
 - B) the difficulty of making pharmacological enhancement socially acceptable.
 - C) equalizing cognitive competitive advantages among social groups.
 - D) bureaucracies which hamper cognitive enhancement activities.
 - E) the relationship between external and internal intelligence augmentation.
3. As it is used in line 27, the word *placated* most closely means
 - A) deprived.
 - B) enhanced.
 - C) cured.
 - D) assisted.
 - E) quieted.
4. In the context of the passage, which of the following best articulates the author's opinion?
 - A) Intelligence amplification by external means might be more difficult to achieve than by internal means.
 - B) Cognitive augmentation does not really constitute evolution.
 - C) Some people consider intelligence enhancement to be a form of cheating.
 - D) External and internal intelligence enhancement might constitute evolution in cultures that accept them.
 - E) Personalized software could be misused by a bureaucracy intent on its own continued survival.
5. The primary purpose of the passage is to
 - A) describe different kinds of intelligence enhancement.
 - B) discuss society's reactions to pharmacological cognitive augmentation.
 - C) examine the differences between external and internal intelligence enhancement.
 - D) dispel misgivings about humanity's attempts at creating its own evolution.
 - E) illustrate the limitations of external intelligence augmentation.

