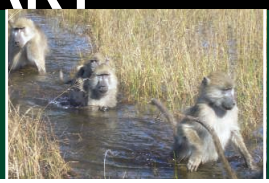
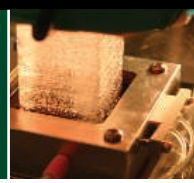




LETTERS

edited by Etta Kavanagh

A Proposal for a Decade of the Mind Initiative

A DEEP SCIENTIFIC UNDERSTANDING OF HOW THE MIND PERCEIVES, thinks, and acts is within our grasp. Such an understanding will have a revolutionary impact on national interests in science, medicine, economic growth, security, and well-being. It is our belief that paradigm-shifting progress can be made now by establishing a major national research initiative called "The Decade of the Mind."

A Decade of the Mind initiative would build on progress of the recent Decade of the Brain (1990–99), which dramatically increased the visibility of neuroscience (*1*). Unlike the Decade of the Brain, which focused on neuroscience and clinical applications, the Decade of the Mind initiative, by necessity, should be transdisciplinary and multi-agency in its approach. Success will require research that reaches across disparate fields such as cognitive science, medicine, neuroscience, psychology, mathematics, engineering, and computer science. Additional important insights will need to come from areas as diverse as systems biology, cultural anthropology, social science, robotics, and automation technology.

For these reasons, we believe a Decade of the Mind initiative should focus on four broad, but intertwined areas (see figure).

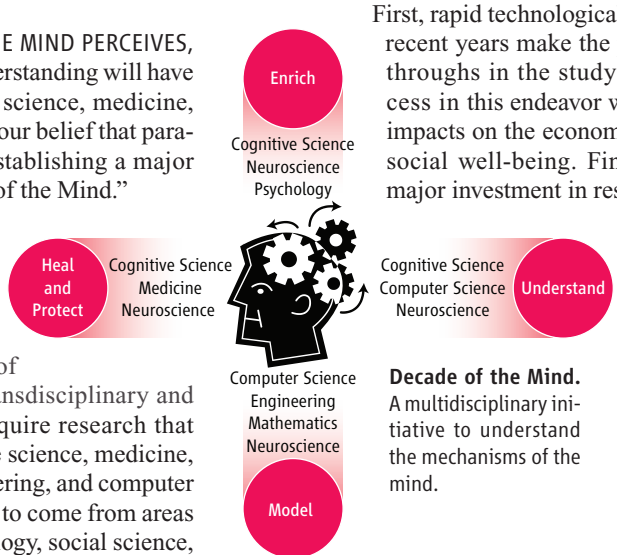
1) Healing and protecting the mind. Disorders of the mind affect more than 50 million Americans annually at costs exceeding $400 billion (*2*). It is our obligation as scientists and health care workers to address these social, personal, and economic burdens on our society.

2) Understanding the mind. Although much progress has been achieved recently in brain research, a fundamental understanding of how the brain gives rise to the mind is still lacking. Knowledge of the mind's inner workings will require new tools that can deeply probe mental processes. Research should be encouraged on aspects of the mind believed to be uniquely human, such as the notion of self, rational thought processes, theory of mind, language, and higher order consciousness.

3) Enriching the mind. A better understanding of the mind will enrich our lives by improving our education system at all levels, treating mental illnesses and addictions, extending the mind to new skills, and educating the general public on legal and ethical issues involving the brain and the mind.

4) Modeling the mind. Combining theoretical and computational methodologies with empirical findings will be crucial for healing, understanding, and enriching the mind. Large-scale brain modeling efforts will predict and diagnose disorders, test treatments for diseases, explain brain and mind phenomena, spur development of novel computing architectures, and enable the construction of intelligent machines.

Why is a national Decade of the Mind initiative necessary now? First, rapid technological and biomedical progress of recent years make the present time ripe for breakthroughs in the study of the mind. Second, success in this endeavor will have broad and dramatic impacts on the economy, national security, and our social well-being. Finally, to achieve success, a major investment in research and development will be required, with a time horizon on the order of 10 years. A Decade of the Mind initiative could achieve these goals and improve our lives and our children's lives in ways we cannot now conceive.



Decade of the Mind. A multidisciplinary initiative to understand the mechanisms of the mind.

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*The views expressed in this article do not necessarily represent the views of the U.S. National Institute of Standards and Technology, the U.S. Department of Commerce, or the U.S. government.

†This Letter was prepared as part of the co-author's official duties as a U.S. government employee. The views expressed in the Letter do not necessarily represent the views of the NIMH, NIH, DHHS, or the U.S. government.

References and Notes

1. E. G. Jones, L. M. Mendell, *Science* **284**, 739 (1999).
2. J. Carey, Ed., *Brain Facts: A Primer on the Brain and Nervous System* (Society for Neuroscience, Washington, DC, 2006).
3. The authors represent the steering committee for the Decade of the Mind initiative. A Decade of the Mind Symposium was held on 21 to 22 May 2007 at The Krasnow Institute for Advanced Study at George Mason University in Fairfax, VA, where many of the issues contained in this Letter were originally discussed.

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