

ICSEM WINTER SCHOOL

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The Challenges of Active Aging.

Integrating Approaches from Neuroscience and Educational Methodologies to Generative Aging

The individual and social challenges created by population aging and especially the growing number of people labeled with dementia demand new innovative and comprehensive approaches. A broader integrative biology needs to replace reductionist, overly simplistic biomedical solutions that dominate today's scientific discourse. For example, Alzheimer's is a heterogeneous syndrome characterized more fully at a system rather than molecular level. Coordinated scientific and community responses are needed, including new attention to intergenerational relationships, generative learning, and empowering health practices. The ICSEM Winter School is a successful public charter school that provides proficiency opportunities for teachers, educationalist and trainers to perform and valorize their methodologies of care and support children and adults of various ages including those with dementia.

Cognitive dysfunction challenges individuals of all ages, particularly elders and societies of all demographics, especially those with rapidly aging populations. Learning impairments of all kinds occur throughout the life course, including notably dementia in children, adults, and seniors. Such cognitive disabilities can limit participation as citizens in a democratic society and create burdens for health care systems and communities around the world. Dementia is defined as loss of cognitive abilities in someone with previously greater intellectual ability. However, dementia is also a metaphor for the challenges we face as a species. Modern life is difficult to comprehend, and we have arguably forgotten older cultural wisdoms and are doing poorly at some of our collective activities of daily living, like eating well and disposing of our waste.

Cognitive and Metacognitive aging is about more than just about loss of abilities. Aging presents challenges that offer opportunities for individual and social growth, even the emergence of wisdom. But Dementia also can occur in children, but youngsters are more commonly affected by words like *learning disability* and *developmental delay*. Diagnoses at all ages can lead to appropriate allocation of social resources but also have potentially harmful effects and they create lower expectations for success in school or in life. The importance of the invention and evolution of words and stories related to cognitive aging is a major theme of the Winter School.

Alzheimer's disease (AD) should constitute, also, the greatest socially perceived threat to healthy aging in the later stages of life. Yet it is as much the concept of AD that is the threat rather than the actual brain changes that accompany the heterogeneous age-related conditions we currently label with one man's name as a singular noun. In the present moment with many countries and

the World Health Organization (WHO) developing strategies for addressing dementia and AACC, it is essential to understand the complexities of the problem and mount an adequately broad social response that goes beyond reductionist, falsely hopeful, purely scientific approaches. To have success such plans must recognize not only the limitations of current approaches but also other global health challenges that we face like social injustice, economic turmoil, and global climate change with associated weather weirding (i.e., more variable and destructive meteorological events). Particularly today when social, economic, and ecological devastation threatens our communities and arguably even our species, we needed to think more deeply about the words we use to label problems and work diligently and honestly to enrich the sources of genuine hope in the stories that we create to imagine a viable future. In our vision rehabilitation is not enough. But Elderly Education and Training is a powerful and ever-evolving force for social change, as keywords can capture our imaginations, particularly when embedded in powerful stories. Some old words (like Alzheimer's and dementia) need reexamining and others (intergenerativity and ecopsychosocial) perhaps employed to capture new realities.

We need new guidance from science but one that is less simplistic and more innovative and humble. Clinical care and research will likely be more effective if it is less discipline-based (i.e., interprofessional and transdisciplinary) and more open to integrative evolutionary systems thinking (e.g., ecopsychosocial models of health) At a social level we need to rethink the concept of community and the relationships between humans and the rest of nature. Perhaps the dominant molecularly oriented scientific establishment is slowly losing its grip on its messaging that has promised us solutions that are always just around the corner on the expensive march to progress. Fewer promising drugs are emerging from the pipeline that ostensibly runs from laboratory to the clinical. This notion that "cure" through genetic reductionistic medicine is our only (or at least main) hope needs to be challenged and rejected.

An integrative primary care&education model embedded in community that empowers the self-efficacy of those that it serves is essential. Prevention of chronic cognitive and metacognitive disease is becoming the watchword in efforts to reform health systems and in conditions that affect the aging brain. As a result, worlds of possibilities are opening up to us through public health and educational programs.

Intergenerational relationships in elderly learning communities offer the best hope to create new stories that foster responsibility for one another, shared power, and a sustainable future. The stakes are high. If we continue along our current course dominated by uncritical scientism and unbridled capitalism with resultant hype and false hope, we will lose opportunities to take other paths that not only offer a better quality of life for those with dementia but for all of us. Science is powerful, but a faith in scientific and technological solutions that goes beyond a reasonable extrapolation of existing capabilities becomes a form of religious dogma. The lessons found in efforts to reimagine and reinvent "AD" may provide keys to creating a greater collective wisdom about the transformation and the metacognitive development of aging, the role of brain science, and the reality of human interdependence.