



October 2013

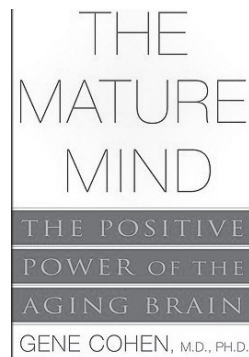
Issue No. 90

IN SIGHT *for Oregon Lawyers and Judges*

IMPROVING THE QUALITY OF YOUR PERSONAL AND PROFESSIONAL LIFE

BOOK REVIEW: THE MATURE MIND: THE POSITIVE POWER OF THE AGING BRAIN

In his theory of human development, psychologist Erik Erikson offered a last, single developmental stage after the onset of adulthood – Mature Age (65 to death). In *The*



Mature Mind, Gene Cohen, MD, PhD, a student of Erikson at Harvard, builds upon his developmental model by expanding the Mature Age stage into four overlapping “developmental phases” that span

the second half of life.

- **Midlife reevaluation** (early 40s to late 50s): Adults reevaluate their lives (*Where have I been? Where am I now? Where am I going?*) in search of what is true and meaningful.
- **Liberation** (late 50s to early 70s): A time to free ourselves of earlier inhibitions and limitations and a time to experiment and innovate (*If not now, when?*). Partial retirement or retirement provides an opportunity to experiment with new experiences.
- **Summing up** (late 60s through the 80s): A time of autobiographical review, giving back through volunteerism and philanthropy, and a time of resolution.
- **Encore** (late 70s to the end of life): Not “encore” as a final act but as a time of continuation and reflection, manifesting a desire to go on even in the face of adversity or loss, to remain

vital, and to live well to the end.

Cognitive Functioning and the Mature Mind

Cohen introduces and summarizes brain science research of the past decade or two in support of these developmental phases. The most important of these findings is that much of the decline in mental functioning that had previously been erroneously associated with aging is, in fact, not directly caused by aging per se but by declines in physical health and fitness in general and by specific physical and mental diseases such as microstrokes, Alzheimer’s disease, substance abuse, and depression.

Cohen recognizes that certain aspects of brain function actually do decline with age, principally the raw speed that the brain is able to process information, the efficiency of short-term memory storage, and reaction times. However, solid research over the past two decades has firmly established that:

- New brain cells continue to form or develop, particularly in the region of the hippocampus, which is integral to memory formation.
- The brain is continually forming new neural pathways and rewiring itself in response to new experiences, new intellectual stimulation, and learning. Consequently, “brain cells in the parts of the brain that an older person has used continuously would look like a dense forest of thickly branched trees, compared to the thinner and less dense forest of a young brain. This neural density is

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the physical basis for the skills and experience of accomplished older adults.”

- The brain’s emotional circuitry matures and becomes more balanced with age, increasing the mature adult’s capacity to successfully ride out emotional storms more flexibly.
- The brain’s two hemispheres are more equally accessed by high-functioning older adults than younger adults, which produces advantages such as coordinated bilateral thinking as the brain ages.

In most people, speech, language, and mathematical and logical reasoning are handled by the left hemisphere. The right hemisphere, in general, specializes in such functions as face recognition, visual-spatial comprehension, and creative and synthesizing functions. Researchers using brain-scanning techniques to compare brain function in younger and older adults have found that young adults engaged in memory and autobiographical recall primarily use the left brain hemisphere, while high-functioning older adults simultaneously access both brain hemispheres when engaging in these same tasks. Cohen often described this advantage of aging brains as switching from unilateral thinking to bilateral thinking, or shifting from two-wheel to four-wheel drive at about age 50. This research supports the hypothesis that older adults are able to expand the redundant capacity of the brain and counteract age-related neural decline by reorganizing their neural networks. Cohen speculates that “perhaps part of the autobiographical drive among older adults is related to this rearrangement of brain functions that makes it easier to merge the speech, language and sequential thinking typical of the left hemisphere with the creative, synthesizing right hemisphere.”

In *The Mature Mind*, Cohen also introduces the concept of developmental intelligence, which mature adults express in deepening wisdom, judgment, perspective, and vision. Developmental intelligence is characterized by three types of thinking/reasoning:

- **Relativistic thinking:** recognizing that knowledge may be relative, not absolute or black and white.
- **Dialectical thinking:** the ability to uncover and resolve contradiction in opposing and seemingly incompatible views.

- **Systematic thinking:** being able to see the larger picture and to distinguish between the forest and the trees.

“Our capacity to accept uncertainty, to admit that answers are often relative, and to suspend judgment for a more careful evaluation of opposing claims is a true measure of our developmental intelligence.” These three types of thinking do not manifest naturally in youth. It takes experience to develop this more flexible and subtle form of thinking. That’s why most of us would not be comfortable with the appointment of a twenty-something-year-old lawyer to the U.S. Supreme Court.

Brain Fitness

Cohen draws from brain research of the past two decades to identify five categories of activities that, if practiced regularly, can significantly boost brain functioning:

- **Mental exercise:** “Engaging in challenging new learning experiences boosts the development of the brain in the second half of life because the new experiences generate new synapses and neural structures.”
- **Physical exercise:** Numerous studies have shown that regular physical exercise, particularly aerobic exercise, boosts brain power and reduces the risk of developing cognitive impairment and suffering cognitive decline.
- **Establishing strong social networks.**
- **Pursuing mastery of an activity, which instills a sense of control.**
- **Developing challenging leisure activities.**

In sum, Cohen builds a grounded argument that older, mature minds are not better or worse than they were before about age 50; they are structurally and functionally *different*. Since the publication of Cohen’s groundbreaking book, there is an emerging body of research confirming the power and potential of leveraging those positive differences throughout life.

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