The Taos Institute’s co-founder and board president, Kenneth J. Gergen, PhD is featured in this article. (#19 on page 30 in alpha order)

The 50 Most Influential Psychologists in the World

1. John R. Anderson | Cognitive Psychology

Anderson was born in Vancouver, British Columbia, Canada, in 1947. He received his bachelor’s degree from the University of British Columbia in 1968, and his PhD in psychology from Stanford University in 1972. Today, he is Professor of Psychology (with a joint appointment in Computer Science) at Carnegie Mellon University.

Anderson is a pioneer in the use of computers to model the “architecture” of the human mind, an approach known as “rational analysis.” He is perhaps best known for his ACT-R (Adaptive Control of Thought-Rational) proposal regarding the hypothetical computational structures underlying human general intelligence. Anderson also engaged in careful experimental studies, using fMRI technology, in an effort to provide empirical support for his theoretical models. Out this work came a number of insights now considered basic to cognitive science, such as, notably, the stage theory of problem-solving (encoding, planning, solving, and response stages), and the decomposition theory of learning (breaking down a problem into more-manageable
components, also known as chunking). In his path-breaking early work, Anderson collaborated with Herbert Simon and other giants in the history of cognitive science. In more recent years, he has been involved in the development of intelligent tutoring systems.

The author or co-author of over 320 peer-reviewed journal articles and book chapters, and the author, co-author, or editor of six highly influential books, Anderson has received numerous awards, grants, fellowships, lectureships, and honorary degrees. In 2016, the US National Academy of Sciences (NAS) bestowed upon him its prestigious Atkinson Prize.

### Academic Website

### Selected Books

- *Language, Memory, and Thought* (Lawrence Erlbaum, 1976)
- *The Adaptive Character of Thought* (Lawrence Erlbaum, 1990)

### 2. Dan Ariely | Behavioral Economics

Ariely was born in New York City in 1967 to an Israeli family living there temporarily. He returned to Israel with his family when he
was three years old, and grew up in the town of Ramat HaSharon. He received his bachelor’s degree in psychology in 1971 from Tel Aviv University, and his PhD in cognitive psychology in 1991 from the University of North Carolina at Chapel Hill. Ariely went on to earn a second doctorate in business administration in 1998 from Duke University. He is currently the James B. Duke Professor of Psychology and Behavioral Economics at Duke University’s Fuqua School of Business.

Ariely’s work draws on insights from biological and cognitive psychology, on the one hand, and economics, on the other—in a burgeoning new field that has come to be known as behavioral economics. Behavioral economics examines the same subject matter as economics—choice and decision-making under conditions of scarcity—but relaxes the central assumption of mainstream economics, which is that human beings are rational agents who may be counted on to act in their own best interests. Ariely and other behavioral economists (see Daniel Kahneman, below) replace this vastly over-simplified presupposition with a more realistic analysis of human motivation that takes into account many more factors that go into making real-world decisions. In particular, he analyzes the many ways in which human beings are prone to cognitive illusions, and how such mistakes affect our lives. In a nutshell, he believes that, just as we build the material world of buildings, tools, vehicles, etc. with our physical limitations in mind, so too ought we to design our social world of educational, financial, legal, and political institutions with our cognitive limitations in mind.

Ariely, who is the founder of a number of private for-profit ventures, has become well known beyond the academic world for his best-selling popular books (see below), his TED talks, and his widely read Wall Street Journal advice column.

**Dan Ariely Interview — A Primer on Behavioral Economics**

**Personal Website**

**Selected Books**

Aronson was born in the Boston suburb of Chelsea in 1932. He earned his bachelor’s degree from Brandeis University in 1954, and his master’s degree from Wesleyan University—where he worked with David McClelland—in 1956. He received his PhD in 1959 from Stanford University, where his dissertation adviser was Leon Festinger. He is currently Professor Emeritus of Psychology at the University of California, Santa Cruz.

Aronson’s work has focused on the social dimension of human motivational systems, such as the structural reasons for prejudice and aggression, as well as more cognitively oriented dimensions, such as cognitive dissonance (the discomfort we feel when some of our beliefs contradict others). Aronson’s is one of the most famous names in the discipline of social psychology, due in no small part to his best-selling survey of the entire field, entitled *The Social Animal*, first published in 1972. Convinced that seemingly irrational behavior usually has a rational explanation, Aronson is also known for what he calls his First Law—namely, “People who do crazy things are not necessarily crazy.” He is famous, too, for his contributions to the understanding and mitigation of interpersonal and interethnic conflict, including the idea of the “jigsaw classroom,” which is a technique for defusing tensions arising from interpersonal and interethnic competition in the classroom by means of organizing students into diverse teams, each member of which is responsible for one piece of the overall assignment (hence the term “jigsaw”). The technique has proved effective at fostering a sense of mutual reliance and team spirit in troubled school settings.
In addition to *The Social Animal*, Aronson has authored, co-authored, or edited some two dozen books aimed at popular and academic audiences, as well as an autobiography and a work of fiction for children. He has received awards too numerous to mention, including the William James Fellow Award for Distinguished Lifetime Contributions to Scientific Psychology.

**Academic Website**

**Selected Books**

- *Nobody Left to Hate* (Henry Holt, 2000)
- *Age of Propaganda* (Henry Holt, 2001)

4. **Alan D. Baddeley | Cognitive Psychology**

Baddeley was born in Leeds, in the UK, in 1934. He received his bachelor’s degree in 1956 from University College London, and his master’s degree in psychology in 1957 from Princeton University. He completed his PhD at the University of Cambridge in 1962. He is currently Professor of Psychology at the University of York in the UK.
Baddeley’s work has focused on memory—its structure (working memory, episodic memory, long-term memory) and the neural correlates of these components. He is perhaps best known for his multiple components model of working memory (the Baddeley Model), in which working (or short-term) memory is further analyzed into a central executive component and certain “slave systems” under its control, for example, the so-called “phonological loop,” which allows us to rehearse complex linguistic information to maintain its availability for working memory, and the “visuo-spatial scratchpad,” which stores information about the physical environment for use in the construction of mental maps. The author or co-author of several hundred peer-reviewed research articles, Baddeley is the co-author of a prominent textbook, *Memory*, and has authored, co-authored, or edited numerous other influential volumes in the field. He has also been heavily involved in the field of psychological measurement, having helped design a number of widely used tests, including the Children’s Test of Nonword Repetition (CN REP), the Speed and Capacity of Language Processing Test (SCOLP), and the Rivermead Behavioural Memory Test (RBMT).

The author or co-author of some 475 peer-reviewed journal articles and book chapters, Baddeley is also the author, co-author, or editor of some half dozen books. He has received numerous awards, grants, fellowships, lectureships, honorary degrees, and other honors, culminating in his 1991 appointment as a Commander of the Order of the British Empire (CBE) and his 1993 appointment as a Fellow of the Royal Society (FRS).

**Academic Website**

**Selected Books**

- *Working Memory, Thought, and Action* (Oxford University Press, 2007)
- *Essentials of Human Memory* (Psychology Press, 2013)
Bandura was born in Mundare, Alberta, Canada, in 1925. His father was an immigrant to Canada from Poland, while his mother hailed from Ukraine. He received his bachelor’s degree in psychology in 1949 from the University of British Columbia, and his master's degree in theoretical psychology in 1951 from the University of Iowa. He obtained his PhD the following year from the same university, where he worked under the supervision of Arthur L. Benton. He is currently the David Starr Jordan Professor Emeritus of Social Science in Psychology at Stanford University.

Though Bandura’s work has been primarily oriented toward social psychology, he has had no hesitation in borrowing ideas from other fields—and repaying ideas to them with interest. Thus, he has situated himself at a point of intersection among the social, cognitive, personality, and clinical sub-fields of psychology. He was among the pioneering cohort of psychologists who rejected the then-reigning theory of behaviorism, which programmatically ignored the mental mediation of behavior. Moreover, he is considered to be the founder of social learning theory (later known as “social cognitive theory”), and has been much concerned with its application to education. Bandura first came to prominence for his work on aggression, particularly in children and adolescents. In 1961, he designed the famous (and controversial) Bobo Doll experiment, to demonstrate how aggressive behavior in young children may learned from adults. With time, however, Bandura increasingly abandoned external-force theories of learning and behavior in favor of an internal, self-organizing model which viewed the human being as possessed of genuine agency. He has sought to extend this approach to education with his theory of self-regulated learning, and to clinical psychology with his theory of “self-efficacy,” or self-control. Bandura’s self-efficacy model is often considered to be a forerunner of today’s popular cognitive behavioral therapy (CBT).
Bandura is the author or co-author of around 350 peer-reviewed journal articles and book chapters, as well as the author, co-author, or editor of some dozen books. The recipient of grants, fellowships, and other honors too numerous to mention, in 2016, Bandura was awarded the US National Medal of Science.

Selected Books

- Adolescent Aggression (Ronald Press, 1959)
- Principles of Behavior Modification (Holt, Rinehart and Winston, 1969)
- Social Learning and Personality Development (Holt, Rinehart and Winston, 1975)
- Social Learning Theory (Prentice-Hall, 1977)
- Self-Efficacy: The Exercise of Control (W.H. Freeman, 1997)

6. Lisa Feldman Barrett | Biological Psychology

Barrett (née Feldman) was born in Toronto, Ontario, Canada, in 1963. She received her bachelor’s degree in psychology from the University of Toronto, and her PhD in clinical psychology at the University of Waterloo, in Waterloo, Ontario. She is currently University Distinguished Professor of Psychology at Northeastern University, where she heads up the Interdisciplinary Affective Science Laboratory (IASL).
Her professional work has always focused on the emotions, primarily from a biological and cognitive point of view. However, like several other psychologists on this list, Barrett has come to see the value of interdisciplinary efforts to study the mind. The IASL positions itself at the crossroads of the sub-fields of social psychology, psychophysiology, cognitive science, psycholinguistics, and neuroscience, while also drawing inspiration from such humanistic fields as ethnology and philosophy. She has also been deeply involved in developing new methods for studying the emotions, notably the “experience sampling method,” which is an effort to quantify and measure the quality of everyday life. The IASL also employs the latest in high-tech brain-imaging techniques.

With well over 200 peer-reviewed papers and a half dozen books (as sole author or co-editor) to her credit, Barrett has received wide recognition in the form of honors and awards too numerous to mention, notably election as Fellow of the American Psychological Association (APA) in 2005 and the American Association for the Advancement of Science (AAAS) in 2008.

Academic Website

Selected Books

- *Emotion and Consciousness* (Guilford Press, 2007)
- *The Psychological Construction of Emotion* (Guilford Press, 2014)
Aaron T. Beck | Psychiatry, Personality Psychology

Beck was born in Providence, Rhode Island, in 1921. His parents were Jewish immigrants to the US from Russia. He took his bachelor's degree *magna cum laude* in 1942 from Brown University, and received his MD in 1946 from Yale Medical School. He is currently Emeritus Professor of Psychiatry at the University of Pennsylvania’s Perelman School of Medicine, as well as President Emeritus of the Beck Institute for Cognitive Behavior Therapy.

Beck’s work has centered on the diagnosis and treatment of depression, anxiety, and phobia disorders. He is undoubtedly best known as the person primarily responsible for the cognitive approach to therapy for depression, which in its modern form of cognitive-behavioral therapy (CBT) has become the gold standard for the clinical treatment of depression, with a much higher success rate than other types of psychotherapy. It is hard for us today to appreciate what a radical break Beck’s cognitive approach represented in the late 1950s and early 1960s, in a field still dominated by Freud’s idea that the root cause of most neurosis is sexual repression. In working with his patients, Beck came to believe that it was their distorted view of reality—their inability to understand the objective causes and effects operating in the concrete situations facing them—that lay at the root of their psychological suffering.

Beck is also widely known as the author of the Beck Depression Inventory (BDI), a self-reporting questionnaire designed to measure the severity of depression, which has been revised twice and is still widely used, but which also spawned a whole industry of similar inventories. Beck was also an important contributor to the theory of “learned helplessness.”

The indefatigable author or co-author of over 600 peer-reviewed articles and the author, co-author, or editor of some two dozen technical books, Beck is
one of the most highly esteemed and influential psychiatrists of the twentieth century.

**Academic Website**

**Selected Books**

- *The Diagnosis and Management of Depression* (University of Pennsylvania Press, 1967)
- *Cognitive Therapy of Depression* (Guilford Press, 1979)
- *Group Cognitive Therapy for Addictions* (Guilford Press, 2012)

**8. Kent C. Berridge | Biological Psychology**

Berridge was born in 1957. He received his bachelor's degree in 1979 from the University of California, Davis, and his master's in 1980 from the University of Pennsylvania. He also received his PhD from Penn, in 1983. He is currently Professor of Psychology and Neuroscience at the University of Michigan, as well as Director of the Affective Neuroscience and Biopsychology Lab there.
Berridge’s work is situated in close proximity to neuroscience, and concentrates on the neural correlates of human conscious affective states—pleasure, pain, joy, sorrow, elation, depression, and so forth—as well as learning, decision-making, addictive behavior, and allied topics. The master question that his lab raises and attempts to answer is the way in which affective states are generated in the brain, including pleasure, desire and appetite, emotion, and affective valence (the subjective scale from positive to negative value according to which most affective states present themselves to us). In addition, Berridge’s works addresses still more complex issues, such as the neural basis of learning, the causes of addiction, the neurobiological relation between desire and fear, and the neurobiological relation between consciousness and emotion (can there be unconscious emotions?).

Berridge is the author or co-author of approximately 200 peer-reviewed research papers and chapters of edited volumes, and is the co-editor (with Morten L. Kringelbach) of *Pleasures of the Brain* (Oxford University Press, 2009). With a citation h-index that puts him in the 95th percentile of all scientists working in the biomedical field, Berridge has won many honors, including (in 2011) election as Fellow of the American Association for the Advancement of Science (AAAS) and (in 2016) receipt of the Distinguished Scientific Contributions Award bestowed by the American Psychological Association (APA).

9. **Paul Bloom | Psycholinguistics, Developmental Psychology**

Bloom was born in Montreal, Quebec, Canada, in 1963. He earned his bachelor’s degree in psychology in 1985 from McGill University, and his PhD in cognitive psychology in 1990 from MIT. His doctoral dissertation on the subject of language acquisition was supervised by Susan
Carey. He is currently the Brooks and Suzanne Ragen Professor of Psychology and Cognitive Science at Yale University.

Bloom’s early work was primarily in language acquisition—the process by which infants and toddlers come to acquire the ability to understand and produce human speech. With time, however, Bloom’s work has become increasingly ambitious, crossing over into the territory of philosophy. In his popular books, he has focused on the light that he believes psycholinguistics and developmental psychology can throw on the biological roots of morality, religion, literature, and art—all the things that, as he puts it, make us human. More specific projects that have grown out of this overriding interest include the exploration of moral judgments in babies, of the role that anger, disgust, and empathy play in the moral lives of adults, of our commonsense understanding of ourselves as possessing free will, of the nature of pleasure (especially, the pleasure we derive from fiction), of the psychology of religious belief and atheism, and of our commonsense feeling that our self, or soul, is separate from our body. To get at these hard-to-quantify beliefs and feelings, Bloom has created a laboratory—the Mind and Development Lab at Yale—that is broadly interdisciplinary, welcoming theory and research from such disciplines and sub-disciplines as cognitive, social, and developmental psychology, behavioral economics, evolutionary theory, and philosophy.

Through his popular books, his frequent op-ed pieces and essays in such venues as the New York Times, the Guardian, and the Atlantic, his blogs on Slate, and his interviews with National Public Radio (NPR) and elsewhere, Bloom has communicated his fascinating and influential ideas to a wide audience far beyond the normal confines of academia.

Academic Website

Selected Books

- Language Acquisition: Core Readings (MIT Press, 1994)
- How Children Learn the Meanings of Words (MIT Press, 2000)
- How Pleasure Works: The New Science of Why We Like What We Like (W.W. Norton & Co., 2010)
Buss was born in Indianapolis, Indiana, in 1953. He earned his bachelor’s degree in 1976 from the University of Texas at Austin, and his PhD in 1981 from the University of California, Berkeley. He is currently Professor of Psychology at the University of Texas at Austin.

Buss works in the area known as evolutionary psychology. Evolutionary psychology traces its roots back to sociobiology, the term proposed by Edward O. Wilson in his landmark 1975 study of the same name on the evolution of “eusociality”—strongly cooperative societies in which individuals regularly sacrifice themselves for the good of the group. It proved so controversial at the time that the brand name “sociobiology” became tarnished; the field subsequently morphed into what is now called “evolutionary psychology.” Evolutionary psychologists attempt to explain widespread and deep-seated human behaviors in terms of selection pressure in the context of the human “environment of evolutionary adaptedness” (EEA)—in our case, the African savannah in the Pleistocene era. Buss’s particular contribution to this discourse has been a theory of sexual competition and selection to explain well-known features of human sexuality. The basic idea is that stereotypical male and female mating strategies reflect the selection pressures of the human EEA. In a nutshell, this means that males were better off (in Darwinian terms of contributing genes to future populations) if they chose mates on the basis of appearance as markers of health and fertility, whereas females were better off in the Darwinian sense if they chose mates on the basis of social status as a marker of their ability to supply resources to the female and her offspring. Similarly, males are predisposed to promiscuity (because of the low physiological cost of their
gametes) and to intense jealousy (to avoid being duped into giving resources to offspring not genetically related to them), whereas females are predisposed to give the *appearance* of fidelity (though not necessarily always the reality). Like other forms of Darwinian theorizing about human before, evolutionary psychology continues to be hotly debated; however, the appeal of Buss’s and similar work for the educated public is undeniable. Latterly, Buss has extended his theorizing to the human propensity for murderous violence.

Buss is the author or co-author of more than 200 peer-reviewed journal articles, and the author, co-author, or editor of some dozen books.

**Academic Website**

**Selected Books**

- *Sex, Power, Conflict: Evolutionary and Feminist Perspectives* (Oxford University Press, 1996)
- *The Handbook of Evolutionary Psychology* (John Wiley and Sons, 2005)
Leda Cosmides was born in Philadelphia, Pennsylvania, in 1957. She received her bachelor’s degree in 1979 from Radcliffe College, and her PhD in 1985 from Harvard University. At Harvard, she worked closely with famed evolutionary theorist Robert L. Trivers. She is currently Distinguished Professor in the Department of Psychological and Brain Sciences at the University of California, Santa Barbara.

Cosmides, who throughout her career has worked closely and published jointly with her husband, anthropologist John Tooby, is one of the founders of the sub-discipline known as evolutionary psychology (see the entry for David M. Buss, above). As Cosmides has put it:

Evolutionary psychology weaves together cognitive science, human evolution, hunter-gatherer studies, neuroscience, psychology and evolutionary biology, in an attempt to understand and map the human mind and brain.[1]

Her work has been extraordinarily wide-ranging, analyzing from an evolutionary point of view everything from the psychology of cooperation, coalition and friendship formation, incest avoidance, and autism, to threat interpretation, predator-prey relationships, visual attention, statistical reasoning, and multiple memory systems. Cosmides has stated that one reason for casting such a wide net is to illustrate how fruitful and productive evolutionary psychology analyses can be.

She is the author or co-author of some 90 peer-reviewed journal articles and chapters of edited volumes, as well as the co-editor of an influential early work in the field, *The Adapted Mind*, among other volumes. She is the recipient of numerous honors, including election (in 1995) as Fellow of the American
Psychological Association (APA) and appointment as the APA’s 1998 G. Stanley Hall Lecturer. Together with John Tooby, Cosmides co-founded and co-directs the Center for Evolutionary Psychology at UC-Santa Barbara.

Selected Books

- *What is Evolutionary Psychology?* (Yale University Press, 2005)

12. Mihály Csikszentmihályi | Personality Psychology

Csikszentmihályi was born in 1934 in Fiume (now Rijeka) in what was then the Kingdom of Italy and is now the Republic of Croatia. He and his family spent time in an Italian internment camp during the war, but after the war was over he was able to complete his secondary school education in Rome. He emigrated to the US in 1956, at the age of 22. He received his bachelor’s degree in 1960 and his PhD in 1965, both from the University of Chicago. He is currently Distinguished Professor of Psychology and Management at Claremont Graduate University.

Csikszentmihályi has worked almost exclusively in the field of positive psychology—the investigation of the positive human affective states such as pleasure, happiness, joy, love, and creativity. In particular, he is closely associated with the concept of flow. “Flow” is Csikszentmihályi’s term for the positive feelings associated with the experience of being completely absorbed in a task. He argues that flow-generating tasks are ones that people
experience as rewarding for their own sake, as opposed to merely instrumental to some end. He further argues that fundamentally happy people are able to tap into their capacity for flow on a regular basis. He has described this experience in the following terms:

Being completely involved in an activity for its own sake. The ego falls away. Time flies. Every action, movement, and thought follows inevitably from the previous one, like playing jazz. Your whole being is involved, and you’re using your skills to the utmost.[2]

Csikszentmihályi popularized this idea in his 1990 best-seller, *Flow: The Psychology of Optimal Experience*. In addition to personality psychology, his ideas have been influential in the fields of business management and education. Csikszentmihályi has also proposed a closely related concept he calls “work orientation,” which is basically the capacity to experience work as rewarding for its own sake. A high level of work orientation in students is more highly correlated with good grades in school, long-term success in one’s career, and general fulfillment in life than is family environment.

Csikszentmihályi is the author or co-author of about 250 peer-reviewed journal articles and book chapters, as well as the author, co-author, or editor of some 20 books. The recipient of numerous awards, grants, fellowships, invited lectureships, visiting professorships, board membership appointments, and honorary degrees, Csikszentmihályi is a Fellow of the American Academy of Arts and Sciences and of the American Psychological Society (APS).

**Academic Website**

**Selected Books**

Damon was born in Brockton, Massachusetts, in 1944. He received his bachelor’s degree in 1967 from Harvard College, and his PhD in developmental psychology in 1973 from the University of California, Berkeley. Today, he is Professor of Education in Stanford University’s Graduate School of Education, as well as Director of the Stanford Center on Adolescence and a Senior Fellow at the Hoover Institution.

As a developmental psychologist, Damon has focused his research efforts particularly on the intellectual and social development of children, adolescents, and young adults, but also, to a lesser degree, on psychological development of persons throughout the lifespan. His work has consisted principally of large-scale empirical studies, based on both original field research (questionnaires) and meta-studies of the developmental psychology literature. His main conclusions center around the importance of the social environment for the successful enculturation of the growing child, which in turn is crucial to the child’s success and happiness in life. More specifically, Damon has been critical of changes in the conventional wisdom regarding child-rearing in our society over the past couple of generations. Pointing to the drastic decline in all the metrics of young people’s skills and behavior during this period, he argues that parents, schools, and others who have consciously discarded the commonsense attitudes and practices that had prevailed for centuries, putting a much more permissive set of rules and structures in their place, are in large part responsible for this decline. He writes that, albeit with the best of intentions, the relentless focus on “self-esteem” and so-called “child-centered” classrooms and child-rearing practices not only reflect a theoretical misunderstanding of children’s real needs, but have been
disastrous in practice. As he summarizes the point: “Less is expected of the young, and in turn less is received.” Several of Damon’s many books have been aimed at a general readership; among these The Path to Purpose, in particular, has struck a chord, resonating with a very wide audience and helping to disseminate Damon’s ideas far beyond the usual boundaries of academia.

Damon is the author or co-author of about 125 peer-reviewed journal articles and book chapters, and the author, co-author, or editor of some 18 books in all. The recipient of many awards and honors, Damon has received grants supporting his research from such prestigious organizations as the John D. and Catherine T. MacArthur Foundation and the John Templeton Foundation.

Academic Website

Selected Books

- The Social World of the Child (Jossey-Bass, 1977)
- Greater Expectations: Overcoming the Culture of Indulgence in Our Homes and Schools (Free Press, 1995)
- The Path to Purpose: How Young People Find their Calling in Life (Free Press, 2008)
- Failing Liberty 101: How We Are Leaving Young Americans Unprepared for Citizenship in a Free Society (Hoover Institution Press, 2011)
Davidson was born in New York City in 1951. He received his bachelor’s degree in 1972 from New York University, and his PhD in Personality, Psychopathology, and Psychophysiology in 1976 from Harvard University, where he worked with Daniel Goleman. He is currently the William James and Vilas Professor of Psychology and Psychiatry at the University of Wisconsin-Madison. He is also the Founder and Chair of the Center for Healthy Minds.

Davidson is famous for espousing Buddhist traditions of mindfulness and meditation as important empirical phenomena worthy of scientific investigation, as well as important techniques for achieving inner peace and spiritual growth. He is perhaps best known for his EEG and fMRI studies of the brains of Tibetan monks while meditating. Davidson’s basic claim is that our modern understanding of the plasticity of the brain implies that the mind can be trained to achieve more positive affective states. In a nutshell, happiness is a skill—like playing a sport or a musical instrument—and as such it can be learned. His further claim that Buddhist meditational practices are an invaluable aid in such mind-training is more controversial, which is the reason why Davidson undertook the studies on the Tibetan monks—to supply experimental proof of the beneficial effects of meditation. Davidson is a close friend of the 14th Dalai Lama and himself meditates regularly.

Davidson has published many peer-reviewed journal articles and book chapters. He is also the author, co-author, or editor of more than a dozen books. In 2000, he received the Distinguished Scientific Contribution Award for lifetime achievement from the American Psychological Association (APA).
Selected Books

- Consciousness: The Brain, States of Awareness, and Alternate Realities (Irvington Publishers, 1979)
- Psychobiology of Affective Development (Lawrence Erlbaum, 1984)
- Anxiety, Depression, and Emotion (Oxford University Press, 2000)
- Visions of Compassion: Western Scientists and Tibetan Buddhists Examine Human Nature (Oxford University Press, 2001)
- Handbook of Affective Sciences (Oxford University Press, 2009)
- Altered Traits: Science Reveals How Meditation Changes Your Mind, Brain, and Body (Avery, 2017)

15. Edward F. Diener | Personality Psychology

Diener was born in Glendale, California, in 1946. He received his bachelor’s degree in psychology in 1968 from California State University at Fresno, and his PhD in 1974 from the University of Washington. He is currently Professor Psychology at the University of Virginia and at the University of Utah, as well as the Joseph R. Smiley Distinguished Professor Emeritus at the University of Illinois-Champaign/Urbana and a Senior Scientist with the Gallup Organization.
The primary focus of Diener’s research has been in the area of subjective well-being, which is the degree of well-being or happiness that subjects attribute to themselves. In a nutshell, his main finding is that the objective aspect of people’s lives most strongly correlated with subjective well-being is social ties. All other life circumstances (education, marital status, financial status, etc.) being equal, the people who self-report being the happiest are the ones with the strongest interpersonal ties and social support networks. However, Diener found that, all other factors being equal, extraverts still tend to be happier than introverts, leading to the hypothesis that the extraverted personality type is inherently more rewarding, fostering happiness that leads to gregarious behavior, not the other way around. In short, people find happy people attractive. In other work, Diener has found that subjective well-being has measurable positive effects on health and longevity. Diener’s work has also thrown into question the long-standing belief that most people have predetermined set-points for subjective well-being which even highly negative life events (death of spouse, loss of job) do little to change over time. On the contrary, Diener has found that many people do not bounce back from devastating life events, and never return to their previous level of subjective well-being. The good news is that since the so-called “set-point” for subjective well-being appears not to be immutable, therapeutic intervention may potentially be beneficial. Finally, in recent years Diener has begun to explore some of the implications of his findings for politics and public policy, notably in a widely read paper he co-wrote with Martin Seligman (see below), “Beyond Money: Toward an Economy of Well-Being.”[3]

Diener, who has a very high citation h-index score of 102, has published more than 300 peer-reviewed journal articles and book chapters. He is also the author, co-author, or editor of some dozen books. He was elected a Fellow of the American Academy of Arts and Sciences and has received the Distinguished Scientist Award conferred by the American Psychological Association (APA), both in 2012.

Academic Website

Selected Books

16. **Paul Ekman** | Social Psychology, Biological Psychology

Ekman was born in Washington, DC, in 1934. After leaving high school early and studying for three years at the University of Chicago, he received his bachelor’s degree in psychology in 1954 from New York University. Following a one-year internship at the Langley Porter Neuropsychiatric Institute, a teaching hospital which is part of the Department of Psychiatry of the University of California, San Francisco, Ekman obtained his PhD in clinical psychology from Adelphi University in 1958. He is currently Professor Emeritus of Psychology at University of California, Berkeley.

Ekman’s field of expertise is nonverbal communication in humans, especially the communication of emotions through facial expressions. He has developed a highly detailed “atlas of emotions” linked to more than 10,000 distinguishable facial expressions. Ekman’s careful empirical investigations in this field laid the groundwork for the recent development of the field of affective neuroscience. His work has been widely influential, but also controversial. For instance, he has asserted that the emotional meanings of the various facial expressions are largely universal—that is, independent of history or culture—which implies that they are rooted in our common human biology. This claim flies in the face of the deeply entrenched relativism within
the field of cultural anthropology. In another example, Ekman has done extensive work on the differences between spontaneous (genuine) and simulated (deceptive) emotions which may be detected in facial expressions. This work has given rise to various screening techniques (some of which have been adopted by the Transportation Security Administration) which Ekman claims provide us with the best lie detection technology available today. However, the studies Ekman has carried out to back up these claims have come under sustained criticism.

Ekman has published some 170 peer-reviewed journal articles or book chapters, and is the author, co-author, or editor of some 15 books. In 1991, he received the Distinguished Scientific Contribution Award of the American Psychological Association (APA).

**Academic Website**

**Selected Books**

- *Emotion in the Human Face* (Pergamon Press, 1972)
- *What the Face Reveals* (Oxford University Press, 1998)
- *Handbook of Cognition and Emotion* (John Wiley and Sons, 1999)
- *Emotional Awareness: Overcoming the Obstacles to Psychological Balance and Compassion* (Holt Paperbacks, 2009)
- *Nonverbal Messages: Cracking the Code: My Life’s Pursuit* (Paul Ekman Group, 2016)
Jochen Fahrenberg | Personality Psychology, Biological Psychology

Fahrenberg was born in Berlin in 1937. Following undergraduate and graduate studies in psychology, sociology and philosophy in Freiburg, London, and Hamburg, Fahrenberg did his doctoral and post-doctoral work at the University of Freiburg, completing his Habilitationsschrift on the psychophysiological roots of personality there in 1966. He is currently Emeritus Professor of Psychology at the University of Freiburg.

Fahrenberg co-founded the Psychophysiology Research Group (PRG) at the University of Freiburg in 1970, and in 1973 he became Chair of the Psychology Department, a position he held until his retirement in 2002. From this academic perch, Fahrenberg exerted a major influence on psychology throughout the German-speaking world and beyond. At the PRG, he conducted pioneering research in a number of fields, including the neural correlates of personality, the link between personality and illness, cardiovascular rehabilitation, and life satisfaction. The PRG also developed innovative forms of physiological monitoring of subjects, known as ambulatory monitoring or ambulatory assessment, to assist in research on behavior in everyday situations. Specifically, ambulatory monitoring allows researchers to study real-time physiological modifications in conjunction with the subject’s moment-to-moment activities, such as work and leisure. In addition, the PRG also developed a number of important tests and personality scales, notably, the Freiburg Personality Inventory (FPI), which is comparable to the American 16PF Questionnaire and is the most frequently used such assessment tool in German-speaking countries. In later years, Fahrenberg took an interest in the way in which subjects’ belief systems, attitudes, and assumptions about human nature interact with elements of personality, as well as, conversely, the
way in which philosophical assumptions and concepts impact the theory and practice of psychology professionals.

Fahrenberg has co-authored some 150 journal articles with other members of the PRG, as well as editing a number of textbooks. In his later years, Fahrenberg also published a number of articles on the history of psychology as a scientific discipline, the philosophy of science, and the conceptual interactions between psychology and philosophy.

Personal Website

Selected Books

- *Nicht-invasive Methodik für die kardiovasculäre Psychophysiologie* [Non-invasive Methodology for Cardiovascular Psychophysiology] (Peter Lang, 1989)
- *Alltagsnahe Psychologie* [Psychology Close to Everyday Life] (Verlag Hans Huber, 2002)
- *Psychophysiologie in Labor, Klinik und Alltag: 40 Jahre Projektarbeit der Freiburger Forschungsgruppe Psychophysiologie* [Psychophysiology in the Lab, the Clinic, and Everyday Life: 40 Years of Work by the Freiburg Psychophysiology Research Group] (Peter Lang, 2005)
Howard Gardner | Developmental Psychology, Educational Psychology

Gardner was born in Scranton, Pennsylvania, in 1943. He received his bachelor’s degree in social relations in 1965 at Harvard College, where he came into contact with Erik Erikson. After a stint at the London School of Economics, he returned to Harvard, where he obtained his PhD in developmental psychology in 1971, working under the supervision of famed developmental psychologist Jerome Bruner and philosopher Nelson Goodman. He is currently the John H. and Elisabeth A. Hobbs Professor of Cognition and Education at the Harvard Graduate School of Education at Harvard University.

Gardner is a developmental psychologist who has primarily focused on child development and the psychology of education. He is without a doubt best known for his theory of “multiple intelligences”—the highly influential idea that the sort of intelligence measured by standardized IQ tests is only one among a variety of types of intelligence deployed by human beings in their interactions with the world around them (especially the social world).

According to the theory, many common IQ tests themselves fail to distinguish adequately between linguistic intelligence (verbal fluency), logico-mathematical intelligence (numeracy), and spatial intelligence (the ability to manipulate 2- and 3-D shapes), while several other types of intelligence are not measured at all by standard tests, including kinesthetic intelligence (athletic ability), interpersonal intelligence (social/emotional skill), intrapersonal intelligence (self-knowledge), and aesthetic intelligence (artistic/musical ability). While Gardner’s theory of multiple intelligences has been broadly influential at a professional level, as well as wildly popular at a commercial level, it has not been without its critics. A number of observers have pointed out that there is very little empirical support for the theory. It
must be said, too, that while many educators pay lip service to the theory, they have been slow putting it into practice in an everyday classroom setting. In later years, Gardner began exploring the implications of the theory of multiple intelligences for other areas, such as business school training.

Gardner has close to 500 peer-reviewed journal articles and book chapters to his credit, not to mention several hundred op-ed pieces, essays, blog posts, and other articles aimed at a popular audience. He is also the author-, co-author, or editor of some 50 books. Among the most widely known and celebrated of living psychologists, he has won far too many awards, prizes, grants, fellowships, and honorary degrees to mention here.

**Academic Website**

**Selected Books**

- *The Unschooled Mind: How Children Think and How Schools Should Teach* (Basic Books, 1991)
Kenneth J. Gergen | Social Psychology

Gergen was born in Rochester, New York, in 1934. He received his bachelor’s degree in 1957 from Yale University, and his PhD in 1962 from Duke University. He is currently a Senior Research Professor at Swarthmore College, as well as an Adjunct Professor at Tilburg University in the Netherlands, and Chairman of the Board of the Taos Institute.

Gergen began his career in an unconventional way—researching such questions as the disunity of the self and the negative impact of altruistic acts on their recipients—then veered ever deeper into terrain usually associated more closely with philosophy than with psychology. In a nutshell, Gergen imported into social psychology the doctrine of “social constructivism,” which originated in such fields as linguistics (Edward Sapir, Benjamin Whorf), sociology (Alfred Schütz, Peter Berger), anthropology (Franz Boas, Alfred Kroeber, Clifford Geertz), and philosophy (Thomas Kuhn, Nelson Goodman, Michel Foucault). The idea behind social constructivism is that for human beings reality is neither given by the physical world nor conjured up by the individual mind, but rather constructed collectively by a given society or culture. In Gergen’s “relational” view of the self, for example, our sense of self is wholly dependent upon the scope for social action afforded us by our place in society. Moreover, he rejects the ideal of rationality usually associated with the social sciences, pointing out that such ideals themselves derive from particular historically and culturally bound structures. Among the many concepts Gergen has introduced into the social psychology vocabulary are the “cycle of progressive infirmity” (by which psychological diagnoses impact subjects’ self-understanding for the worse) and “generative theory” (the idea...
that the social sciences do not objectively describe the social world so much as theorize it in ways that open up new possibilities for collective action).

Gergen has published more than 500 peer-reviewed journal articles and book chapters, as well as popular articles, op-eds pieces, and the like. He is also the author, co-author, or editor of almost 40 books. He has received numerous honorary degrees and has occupied visiting professorships at a multitude of universities all around the world.

**Academic Website**

### Selected Books

- *Toward Transformation in Social Knowledge* (Springer, 1982)
- *An Invitation to Social Construction* (Sage, 1999)
- *Social Construction in Context* (Sage, 2001)
- *Relational Being: Beyond Self and Community* (Oxford University Press, 2009)
Gilbert was born in 1957. He received his bachelor’s degree summa cum laude in psychology in 1981 from the University of Colorado Denver, and his PhD in social psychology in 1985 from Princeton University. He is currently the Edgar Pierce Professor of Psychology at Harvard University.

Gilbert works at the intersection of social psychology and cognitive psychology, with a focus on the way in which cognitive biases regarding the projected impact of individual choices on happiness (“affective forecasting”) may have wide-ranging societal and political implications. Simply put, affective forecasting is the calculation we all make all the time, consciously or subconsciously, when faced with any decision—generally speaking, we choose the option or the course of action that we believe will lead to the greatest increase in our overall happiness. The problem is that we are not very good at affective forecasting, which is beset by the kind of cognitive fallacies and illusions studied by several other psychologists on this list (Dan Ariely, Daniel Kahneman). For example, most subjects exaggerate the satisfaction they believe they will derive from possessing objects in comparison with having experiences (vacations, entertainment) and cultivating social ties with family and friends. In particular, Gilbert’s empirical studies reliably show that the acquisition of wealth beyond a certain minimum makes no additional contribution to happiness. He therefore urges us to redirect our energies towards ordinary, everyday experiences with family and friends, if we would be happy.

Through his many students, honorary lectures, prizes, and fellowships, Gilbert’s ideas have won widespread recognition from his peers, while his
bestseller, *Stumbling on Happiness*, as well as his many popular essays, television appearances, and TED talks, have carried his message effectively to a very broad popular audience.

**Academic Website**

**Selected Books**

- *Stumbling on Happiness* (Knopf, 2006)

21. Carol Gilligan | Developmental Psychology, Social Psychology

Gilligan (née Friedman) was born in New York City in 1936. She received her bachelor’s degree *summa cum laude* in English literature in 1958 from Swarthmore College, her master’s degree in clinical psychology in 1961 from Radcliffe College, and her PhD in social psychology in 1964 from Harvard University. She is currently Professor of Humanities and Applied Psychology in the Department of Psychology at New York University-Steinhardt, as well as University Professor in NYU’s School of Law.

After teaching at the University of Chicago for several years, Gilligan returned to Harvard in 1971 as an Associate Professor in the Graduate School of Education. It was there that she worked closely with developmental psychologists Erik Erikson and Lawrence Kohlberg. Soon, however, she
became dissatisfied with Kohlberg’s theory of the stages of moral development, which was based on research conducted primarily on male subjects. Gilligan felt that girls and women attain moral maturity by a different path; more importantly, she argued that moral decision-making by women in general takes place “in a different voice” than that by men. In developing her ideas, she came to characterize male morality as primarily rule-based and focused on the individual as the primary bearer of rights and duties and as the locus of judgments of moral desert; whereas women, she held, reason morally from a “care perspective” that is primarily concerned with empathy and compassion, and focused on needs, relationships, and group interests.

Gilligan’s early work—first published in 1982 in her landmark book, *In a Different Voice*—was later developed by her, and by philosophers such as Nel Noddings, Virginia Held, Sara Ruddick, and others, into an entirely new branch of moral philosophy known as the “ethics of care,” which many consider to be an essential complement to, if not a substitute for, the traditional, male-oriented “ethics of justice.” Thus, it can be seen that Gilligan’s ideas have been hugely influential; nevertheless, they have not been immune from criticism. From her “right” flank, as it were, some critics have claimed that her work lacks sufficient empirical support; while from her left flank, she has been charged with “essentialism” and giving aid and comfort to the patriarchy.

Gilligan is the author or co-author or some 100 peer-reviewed journal articles and book chapters, and is the author, co-author, or editor of nine academic books, as well as a novel. She is the recipient of numerous awards, prizes, and honorary degrees.

**Academic Website**

**Selected Books**

- *In a Different Voice: Psychological Theory and Women’s Development* (Harvard University Press, 1982)
- *The Birth of Pleasure: A New Map of Love* (Knopf, 2002)
Goleman was born in Stockton, California, in 1946. He received his bachelor's degree magna cum laude from Amherst College, and his PhD in clinical psychology and personality development from Harvard University. After graduating, he taught for some time at Harvard, before moving to Yale, where he co-founded the Collaborative for Academic, Social, and Emotional Learning at Yale University's Child Studies Center (now located at the University of Illinois at Chicago).

Later, Goleman worked primarily as a literary journalist and freelance writer. He is currently Co-Director of the Consortium for Research on Emotional Intelligence in Organizations, sponsored by Rutgers University, and Board Member Emeritus of the Mind and Life Institute. During the early part of his academic career, Goleman arranged for several extended stays in India and Sri Lanka, in pursuit of his interest in Asian traditions of meditation. The result was his first book, originally published in 1977, on the different types of meditative techniques that he found there. After leaving his teaching job for a career in journalism and writing, Goleman was a regular contributor to the New York Times's science pages for 12 years (between 1984 and 1996), an experience which allowed him to become steeped in the most up-to-date biological and medical literature on the brain. It was to the confluence of these dual streams of ancient meditative practice and modern neuroscience that he owed the breakthrough work that was soon to come. In 1995, he published Emotional Intelligence, which became a huge international bestseller and made the book’s title into a household phrase. In this book,
Goleman studies the emotions from biological, evolutionary, psychological, philosophical, and commonsense perspectives, showing the central role they play, not just in our affective life per se, but in all aspects of human cognition and action. He then makes the more controversial claim that emotional intelligence—the ability to understand one’s own and other people’s emotional states in any given situation—is equally if not more important than IQ as a predictor of success and happiness, not only in one’s interpersonal relations, but also in academic and professional contexts.

Goleman’s work since 1995 has focused on the cultivation of emotional intelligence as a learnable and teachable skill, with important implications for the world of education, for the business community, and for the behavioral sciences more generally.

**Personal Website**

**Selected Books**

Gopnik was born in Philadelphia, Pennsylvania, in 1955. She received her bachelor’s degree in psychology and philosophy in 1975 from McGill University, and her doctorate in experimental psychology in 1980 from Oxford University. She is currently Professor of Psychology at the University of California, Berkeley, with an affiliate appointment in the Philosophy Department.

Gopnik has worked at the intersection of developmental psychology and cognitive science. In particular, she noted early in her career that the mathematical models she was attempting to develop to represent the way infants learn to interact successfully with the world around them were formally similar to Bayesian networks, an application of graph theory to the theory of probability that had been independently developed by philosophers of science to try to understand the way science works, especially in the form of non-deductive logical inference (induction and inference to the best explanation). This was a highly significant observation for at least two reasons: first, it provided a kind of empirical confirmation that Bayesian networks really do capture something important about scientific reasoning; and, second, it powerfully demonstrated that babies are already capable of employing far more sophisticated methods of discovery than one might have imagined absent such evidence. Gopnik, who has been much concerned with philosophical issues throughout her career, realized that this discovery gave substantial backing to the rationalist (or “nature”), side—against the empiricist (or “nurture”) side—of the venerable philosophical debate about the origins of human knowledge. In a nutshell, the all-nurture (or “blank-slate”) theory of human reasoning ability is now untenable in light of Gopnik’s findings. The wide-ranging 2009 book in which Gopnik reported these and many other
findings to a popular audience, *The Philosophical Baby*, was a runaway bestseller.

Gopnik is the author or co-author of more than 150 peer-reviewed journal articles or book chapters, as well as the author, co-author, or editor of six books. The recipient of numerous awards, grants, fellowships, lectureships, and honorary degrees, in 2013 Gopnik was elected a Fellow of the American Academy of Arts and Sciences.

**Academic Website**

**Selected Books**

- *Words, Thoughts, and Theories* (MIT Press, 1996)
Haidt was born in New York City in 1963. He received his bachelor’s degree in philosophy in 1985 from Yale University, and his PhD in psychology in 1992 from the University of Pennsylvania. He is currently Thomas Cooley Professor of Ethical Leadership at New York University’s Stern School of Business.

Haidt’s work has focused on the social effects of various aspects of moral judgment and subconscious decision-making. One of his papers, “The Emotional Dog and Its Rational Tail”[4]—which argues that we mostly make moral judgments on an intuitive basis, reserving moral reasoning for the ex post facto justification of decisions already made—has been cited more than 6000 times. Haidt first became widely known for his work in the field of positive psychology (happiness research), especially for his 2005 book, The Happiness Hypothesis. In this book, he draws heavily on work in cultural anthropology which shows that certain character traits are recognized as embodying wisdom the world over. To be happy, Haidt argues, we must retrain our social moral intuitions, and to do that, we need to consciously cultivate the wise traits, including insight into the appropriate occasions for reciprocity, the ability to change one’s mind, humility, discrimination about the different kinds of love, turning adversity to advantage, the pursuit of virtue, and a sense of the divine, among others. Next, Haidt turned his attention to developing an empirically based typology of the moral emotions (moral foundations theory). His five categories are: caring; fairness; group loyalty; respect for authority; and purity (sanctity). In his most recent book, The Righteous Mind, Haidt argues that those on the political left tend to honor only the first two of these moral principles, while those on the political right honor all five of them. He further argues that the only way to narrow the divide
between left and right is for those on both sides to be more conscious of the moral categories the other side is operating with.

Very recently, Haidt has taken a lot of heat from the cultural left by suggesting that there needs to be a greater diversity of opinion in American academia. Among other things, he has co-founded the Heterodox Academy to further that end. Haidt is the author or co-author of more than 100 peer-reviewed journal articles and book chapters.

**Academic Website**

**Selected Books**


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25. **Jerome Kagan | Developmental Psychology, Personal Psychology**

Jerome Kagan was born in Newark, New Jersey, in 1929. He received his bachelor’s degree in 1950 from Rutgers University, and his PhD in Psychology in 1954 from Yale University. He is currently Daniel and Amy Starch Research Professor of Psychology (Emeritus) at Harvard University, as well as Co-Faculty at the New England Complex Systems Institute.
Kagan began his career working on longitudinal studies designed to reveal whether early childhood experiences have lasting effects on the development of personality. He found that character traits are relatively buffered from any lasting effects of early traumatic experiences, and indeed are quite stable across the entire life cycle. He also found that, while cognitive development is of course dependent upon many important factors in the child’s environment, it is nevertheless quite robust in the sense that early delays may be reliably compensated for later once the environment impediments to normal development are removed. Next, Kagan turned his attention to temperament—relatively stable personality types. He defined two such basic temperaments: inhibited (shy, timid, socially withdrawn) and uninhibited (bold and socially outgoing). These analyses have been widely influential, both within the profession and among laymen; however, Kagan stressed that such knowledge is of only limited therapeutic usefulness, given that temperament arises out of a complex interaction between genes and environment, both of which are beyond our effective control. In recent years, Kagan has turned his attention to a series of problems he finds with the psychological profession itself, including: disregarding the difference in settings in which experimental studies are conducted; basing theories and practices on single measures, rather than complex, multi-dimensional measurements; defining mental illnesses on the basis of symptoms without regard for etiology; and treating disorders with drugs that are non-specific for the disorder. In his most recent work, Kagan has written several books for a popular audience with the aim of pushing back against the tidal wave of materialist reductionism (the idea that the mind is nothing but the brain) in psychology and the wider culture.

Kagan is the author or co-author of some 450 peer-reviewed journal articles and books chapters, as well as the author, co-author, or editor of more than 30 books. The recipient of countless awards, grants, and other honors, he was elected a Member of the American Association for the Advancement of Science (AAAS) in 1963, and a Fellow of the American Academy of Arts and Sciences in 1968.

Academic Website

Selected Books

- *Birth to Maturity: Psychological Development* (John Wiley and Sons, 1962)
- *Galen’s Prophecy* (Basic Books, 1994)
- *An Argument for Mind* (Yale University Press, 2006)
- *The Temperamental Thread: How Genes, Culture, Time and Luck make Us Who We Are* (Dana Press, 2010)

### 26. Daniel Kahneman | Cognitive Psychology, Behavioral Economics

Kahneman was born in 1934 in Tel Aviv, in what was then the British Mandate of Palestine and is today the State of Israel. However, he was raised in Paris, where his parents had emigrated from Lithuania. After spending the war years in hiding in Nazi-occupied France, the family emigrated to Israel permanently in 1948. Kahneman received his bachelor’s degree in psychology and mathematics in 1954 from the Hebrew University of Jerusalem. After his military service in the Israeli Defense Forces, Kahneman went to the US, where he received his PhD in psychology in 1961 from the University of California, Berkeley. He is currently Professor Emeritus of...
Kahneman is chiefly known for founding (together with his long-time collaborator, Amos Tversky, who died in 1996) the academic discipline now known as “behavioral economics.” Traditional economic theory had always assumed that human beings are “rational actors,” which means they can generally be relied upon to act in ways they perceive as furthering their own best interests. This idea was called “rational choice theory” (or “expected utility theory”). Kahneman and Tversky felt that rational choice theory was unrealistic, and they set out to develop more empirically adequate models by making the more realistic assumption of “bounded rationality.” Bounded rationality is the idea that, not only are human actors constrained by emotional factors such as irrational aversions and prejudices, they are simply not very good at reasoning correctly about certain kinds of situations (especially ones involving probabilities). Kahneman and Tversky made a special study of the irrational bias they called “loss aversion”—the common feeling that it is better to avoid losing something than it is to gain the same thing. In later work, Kahneman began to incorporate evolutionary theory more explicitly into his work, developing a two-system, “fast/slow” model of human thinking. According to this theory, the fast system has been “hard-wired” in us by evolution to enable us to react quickly to stressful situations based on rough-and-ready, heuristic behavioral propensities. The slow system, on the other hand, allows us to reflect upon our experience in a more relaxed and thoughtful way.

Kahneman has authored or co-authored some 170 peer-reviewed journal article and book chapters, and is the author, co-author, or editor of seven books. In 2002, he was awarded the Nobel Memorial Prize in Economic Sciences and in 2013, he received the US Presidential Medal of Freedom.

Dan Ariely Interview—A Primer on Behavioral Economics

Academic Website

Selected Books

Robert Kurzban | Evolutionary Psychology

Kurzban was born in Poughkeepsie, New York, in 1969. He received his bachelor's degree in psychology in 1991 from Cornell University, and his PhD in psychology in 1998 from the University of California, Santa Barbara, where he worked with Leda Cosmides (see above) and John Tooby. He is currently Professor of Psychology at the University of Pennsylvania.

As a student of Cosmides, Kurzban belongs to the second generation of evolutionary psychologists (on evolutionary psychology, see the entry for David M. Buss, above). Kurzban’s own work has been very wide-ranging, drawing on insights from social psychology, cognitive psychology, and experimental economics, in addition to evolutionary theory. In a nutshell, he attempts to identify the selective advantage of particular human social behavioral traits in the context of our environment of evolutionary adaptedness (EEA). To cite one well-known example from his work, Kurzban has argued that human beings undoubtedly possess an innate tendency to notice facial and other morphological features of people different from themselves, due to the social context of small-scale hunter-gatherer bands within which hominization occurred. However, while to our modern eyes this history may appear unfortunate, giving rise to racism, the tendency itself is not really linked to race as such (which is in any case a modern social construct). Kurzban has applied similar reasoning to other phenomena such as cooperation, morality, and mate choice (drawing out implications for modern “speed dating”!). Most recently, he has been a key player in the debate over
the “modularity” of brain functions, a crucial assumption underlying evolutionary psychology.

In 2003, Kurzban founded the **Pennsylvania Laboratory for Experimental Evolutionary Psychology** (PLEEP) at the University of Pennsylvania, which he continues to serve as Director. He also serves as Editor-in-Chief of *Evolution and Human Behavior*, and is the author or co-author of around 100 peer-reviewed journal articles and book chapters, as well as the author, co-author, or editor of seven books.

**Academic Website**

**Selected Books**

- *Evolutionary Psychology*, 5 volumes (SAGE Publications, 2016)

**28. David Lewis | Personality Psychology, Clinical Psychology**

David Lewis was born in France in 1942.[5] He received his bachelor’s degree with first-class honors from the University of Westminster, and his doctorate in experimental psychology from the University of Sussex, both in the UK. He is currently Professor of Psychology at the University of Sussex.
The focus of his doctoral work was on the treatment of phobias and general anxiety states. Lewis originally intended to become a doctor, but never received his medical degree. During his time in medical school, he earned his living by his pen (he published his first novel at the age of 16!). After leaving medical school, Lewis worked full-time for the next 10 years as a freelance journalist, photographer, and writer. During this period, he also worked in broadcast journalism, mainly as a presenter for the BBC on the radio and television. It was only after these experiences that he decided to pursue his higher education in psychology, as already outlined above. After graduation, Lewis taught for a while, before qualifying as a Chartered Psychologist and setting up in private practice, where, building upon his graduate school studies, he specialized in treating phobias and anxiety. During this time, he pioneered a new type of therapy called “neurofeedback,” whereby patients monitor their own brain states in real time in response to various positive and negative stimuli, eventually learning to improve control over their emotions. Lewis also conducted research into the interaction between breathing and emotion, which resulted in a new form of breath-control therapy (Bo-tau) for controlling anxiety, phobic responses, and panic attacks. Moreover, he has used his insights into the way the mind and body work together to develop training programs in other fields of endeavor, such as sports and business. In addition, he is considered to be the “father of neuromarketing,” a discipline which uses fMRI and other technology to study how prospective consumers respond to advertisements and other marketing stimuli.

The author or co-author of more than 30 books, many of them bestsellers, Lewis is in high demand as a public speaker. He is also Director of Research at Mindlab International, an internationally recognized neuromarketing firm.

**Personal Website**

**Selected Books**

Marsha M. Linehan | Personality Psychology, Clinical Psychology

Linehan was born in Tulsa, Oklahoma, in 1943. She earned her bachelor's degree in psychology in 1968 from Loyola University Chicago, and her PhD in social and experimental personality psychology in 1971 from the same university. She is currently Professor of Psychology and Adjunct Professor of Psychiatry and Behavioral Sciences at the University of Washington, and Director of that university’s Behavioral Research and Therapy Clinics.

Linehan’s primary field of research has been borderline personality disorder (BPD). Patients suffering from BPD present with extremely volatile emotions and disturbed thinking, without crossing the line into full-blown schizophrenia—hence the notion that they occupy a “borderline” between neurosis and psychosis. Co-morbidities of BPD include clinical depression, bipolar disorder, self-harm, substance abuse, and suicidal ideation. Linehan has revealed that she herself was extremely troubled as an adolescent (in retrospect, she believes she suffered from BPD) and spent two years in a mental hospital, submitting to the relatively crude treatments then available. This experience lay at the root of her determination to study her own condition scientifically. As she put it many years later:
I was in hell . . . And I made a vow: when I get out, I’m going to come back and get others out of here.[10]

Linehan was initially drawn to cognitive-behavioral therapy (CBT), with its emphasis on helping patients to re-frame their conflicts in a more realistic way to enable them to gain sufficient detachment to bring their emotions under better voluntary control (on CBT, see the entry for Aaron T. Beck, above). Soon, however, she felt that another component was needed—religious faith. Linehan has written that her Catholic faith played an important role in her own eventual recovery. However, it was her study of the meditative practices of Zen Buddhism—which she sees as sharing many features with Christian prayer—that led her to focus on the specific approach for which she has become world-famous, and which she came to call “dialectical behavioral therapy” (DBT). These elements are radical acceptance of oneself and one’s present reality, and mindfulness of each passing moment. Together, these two features constitute a way of observing one’s own emotions as they come and go, without acting on them. Another element—and the source of the term “dialectical”—is counterbalancing distorted thoughts and harmful emotions by diametrically opposite ways of thinking and acting. As an evidence-based therapy, DBT is considered by many experts to be the most effective treatment available for BPD and allied illnesses.

Linehan is the author or co-author of around 240 peer-reviewed journal articles and book chapters, and is the author or co-author of seven books and manuals, several of which have been translated into many foreign languages. The recipient of innumerable grants, awards, fellowships, lectureships, and honorary degrees, in 2001 Linehan received the Distinguished Scientist Award bestowed by the Society for a Science of Clinical Psychology, an affiliate of the American Psychological Association (APA).

**Academic Website**

**Selected Books**

- *Cognitive-Behavioral Treatment of Borderline Personality Disorder* (Guilford Press, 1993)
- *Skills Training Manual for Treating Borderline Personality Disorder* (Guilford Press, 1993; 2nd ed. 2014)
- *Dialectical Behavior Therapy with Suicidal Adolescents* (Guilford Press, 2006)
Elizabeth F. Loftus | Cognitive Psychology

Loftus (née Fishman) was born in Los Angeles, California, in 1944. She received her bachelor’s degree with highest honors in mathematics and psychology in 1966 from the University of California, Los Angeles, and her master’s degree and her Ph.D., both in mathematical psychology, in 1967 and 1970, respectively, from Stanford University. She is currently Distinguished Professor of Social Ecology at the University of California, Irvine, where she also holds appointments as Professor of Cognitive Science and Professor of Law. In addition, she is a Fellow of the Center for the Neurobiology of Learning and Memory and was the Founding Director of the Center for Psychology and Law, both at UC-Irvine.

Loftus’s work has focused on human memory. Beginning in the 1970s, she conducted a series of experiments designed to reveal the stability of memory of recent events in the light of contradictory information given to the subject after the fact. Her conclusions showed that it is easy to convince people that their memories are incorrect, and even to cause them to change what they claim to remember—a phenomenon she dubbed the “misinformation effect.” Generalizing from such laboratory studies, Loftus concluded that human memories are constantly being reconstructed, and hence are far more malleable and open to suggestion than previously thought. The implications of her research for eyewitness testimony—upon which our entire criminal justice
system is based—are obvious and troubling. Loftus and her work rocketed to fame in the early 1990s when she gave expert testimony in a series of court cases involving the phenomenon of so-called “repressed memory.” At that time, the idea that the memory of traumatic events might be repressed and only recalled years or even decades later under questioning by experts had taken hold of the public imagination. Prominent cases involved purported mass child molestation and “Satanic rituals.” By explaining her findings regarding the ease with which false memories can be implanted in people’s minds—and children’s most of all—by authority figures, Loftus played a key role in securing justice for those wrongfully accused in such cases, and in bringing this troubling episode of mass hysteria to a close.

Loftus is the author or co-author of close to 600 peer-reviewed journal articles and book chapters, as well as the author, co-author, or editor more than 20 books. The recipient of grants, awards, lectureships, honorary degrees, and other honors too numerous to mention, Loftus is a Member of the National Academy of Sciences (NAS) and a Fellow of the American Academy of Arts and Sciences.

**Academic Website**

**Selected Books**

- *Memory: Surprising New Insights into How We Remember and Why We Forget* (Addison-Wesley, 1980)
- *The Myth of Repressed Memory* (St. Martin’s Press, 1994)
Meltzoff was born in 1950. He received his bachelor's degree in 1972 from Harvard College, and his doctorate in 1976 from Oxford University. He currently holds the Job and Gertrud Tamaki Endowed Chair at the University of Washington, where he is also Professor of Psychology and Co-Director of the university’s Institute for Learning and Brain Sciences.

Meltzoff began his career by studying the ability of very young infants to imitate adult facial expressions and manual gestures, culminating in a landmark paper published in 1977,[6] in which Meltzoff and co-author M. Keith Moore established conclusively that infants as young as two weeks old are capable of reliably imitating adult expressions and gestures—one of the first results to demonstrate that neonates possess far more sophisticated cognitive abilities than anyone had hitherto suspected. Subsequent studies demonstrated similar abilities in newborns within the first hour after birth. These findings were revolutionary in several respects, not least in light of their cross-modal character (vision and proprioception), which implied the existence of a highly developed innate cognitive faculty in newborns. This advance in our understanding had profound implications, not only for developmental psychology, but also for the study of language acquisition, general learning, memory, socialization, and many other important psychic phenomena (for example, see the discussion of the nature/nurture controversy in the entry for Alison Gopnik, above). In later work, Meltzoff turned his attention to a number of other topics, such as autism, empathy, intention, the infant’s “theory of mind” (its ability to understand other people’s intentions), and the neural mechanisms underpinning gaze-following and imitation. As a result of his decades of research on infants, Meltzoff stresses...
the importance of infant imitation for laying the proper foundations for the normal development of our very humanity:

They have a hand, you have a hand and they recognize the similarity and that’s the initial bridge between self and other that gives rise, when they’re older, to a feeling of empathy for others and caring for others.[7]

Meltzoff is the author or co-author of more than 150 peer-reviewed journal articles and book chapters, and has co-authored or edited four books, including three in collaboration with Alison Gopnik (see above). The recipient of many awards, grants, and honorary degrees, Meltzoff sits on the editorial board of eight academic journals and the advisory board or board of trustees of four foundations. He is a Fellow of the American Academy of Arts and Sciences and a Member of the American Association for the Advancement of Science (AAAS).

Academic Website

Selected Books

- *Words, Thoughts, and Theories* (MIT Press, 1996)
Miller was born in Cincinnati, Ohio, in 1965.[8] He earned his bachelor’s degree in biology and psychology in 1987 from Columbia University, and his PhD in experimental psychology in 1993 from Stanford University. His dissertation, written under the supervision of Roger N. Shepard, was titled “Evolution of the Human Brain through Runaway Sexual Selection.” He is currently Associate Professor of Psychology at the University of New Mexico.

Miller has done research in a number of different areas of psychology, above all, in evolutionary psychology, and especially in two sub-fields within that discipline: human sexual selection and the new field of “evolutionary consumer psychology.” (On evolutionary psychology in general, see the discussion under the entry for David M. Buss, above.) Sexual selection, in a nutshell, is the idea that the sexes may sometimes evolve independently of each other through adaptations geared specifically to the mating preferences of the opposite sex. Thus, sexual selection is a subset of natural selection; it is a useful concept for explaining the existence of what might otherwise seem like useless or even harmful traits, such as the peacock’s tail. Miller is especially known for his work on updating famed statistician Ronald A. Fisher’s sexual selection models originally developed in the 1910s. These models showed how, in species with certain types of breeding patterns, sexual selection may spin out of control—to the point of threatening the species’s very existence (“runaway selection”). The extravagant antlers of the extinct Irish elk are often cited as a case in point. Miller has argued that the human brain, whose rapid size increase he believes was due to intense sexual selection pressure, is a Fisherian runaway, and that therefore we
should be very careful about the effects of our intelligence on our long-term survival. Miller has also been at the forefront of developing the new field of evolutionary consumer psychology, which basically uses the logic of sexual selection to explain many features of modern consumer society, by linking them with high social status in males as a marker of reproductive success.

All of this work is highly controversial, both inside the academy and out. Perhaps most controversial of all, however, is Miller’s 2013 *Edge* article praising China’s eugenics policy and by implication advocating a similar policy for the US.[9] In addition to the four books he has authored, co-authored, or edited, Miller is the author or co-author of more than 50 peer-reviewed journal articles and book chapters.

**Academic Website**

**Selected Books**

- *Spent: Sex, Evolution, and Consumer Behavior* (Viking, 2009)
- *Mate: Become the Man Women Want* (Little, Brown and Company, 2015)
Walter Mischel was born in Vienna, Austria, in 1930. His family fled to the US after the Anschluss in 1938, settling in Brooklyn. He received his bachelor's degree in psychology in 1951 from New York University, his master's degree in clinical psychology in 1953 from the College of the City of New York, and his PhD in clinical psychology in 1956 from Ohio State University. He is currently the Robert Johnston Niven Professor of Humane Letters in the Department of Psychology at Columbia University.

Mischel is most closely associated with the claim, originally made in his 1968 book *Personality and Assessment*, that personality traits are highly context-dependent, and that the notion there is a stable personality which manifests uniformly over time and across varied social contexts, as previously believed, is a myth. He did not deny the reality of a fundamental underlying personality altogether, but claimed that its expression is highly complex, and best characterized in terms of contextualized, conditional (if-then) patterns of behavior. A different type of study from the 1960s for which Mischel is even better known—especially to the public at large—Involves preschoolers’ ability to exercise self-control. Mischel devised a simple experimental situation in which a child was offered the choice between one immediate treat or two treats after a relatively brief lapse of time. This became known as the “marshmallow test” after a favorite treat used by investigators. The experiment was run on large numbers of children who were then followed longitudinally, so that it became possible to correlate test results with various academic and life outcomes over time. Mischel found that many years later children who were able to delay gratification had superior academic achievement, greater family and job stability, and even higher earnings.
Mischel is the author or co-author of some 200 peer-reviewed journal articles and book chapters, as well as the author or co-author of four books. He is the recipient of far too many grants, awards, prizes, honorary degrees, consultancies, and editorships to mention here. He was elected Member of the National Academy of Sciences (NAS) in 2004, and Fellow of the American Academy of Arts and Sciences in 1991. During the 2008–2009 academic year, Mischel served as President of the Association for Psychological Science (APS).

**Academic Website**

**Selected Books**


**34. Lynn Nadel | Cognitive Psychology**

Nadel was born in New York City in 1942. He received his bachelor's degree in biology in 1963, his master's degree in psychology in 1965, and his PhD in physiological psychology in 1967, all from McGill University in Montreal, Canada. He is currently Regents’ Professor Emeritus of Psychology and Cognitive Science at the University of Arizona.
Throughout his career, Nadel has worked on the neural underpinnings of memory, though he has also branched out into other fields, such as the neurobiology and treatment of Down Syndrome. During the late 1960s and early 1970s, he worked closely with neuroscientist John O’Keeffe, whom he had known in graduate school and who was then based at University College London, on the role of the hippocampus in memory formation. (The hippocampus is a structure within the limbic system of the brain, between the cerebrum and the cerebellum.) In recording EEG signals from implants in the brains of free-ranging cats, the team deduced that the activation pattern within an animal’s hippocampus was isomorphic to the three-dimensional space it was exploring. In other words, the hippocampus seemed to store a schematic map of the animal’s environment. O’Keeffe and Nadel published their groundbreaking work in 1978 in their landmark book, *The Hippocampus as a Cognitive Map*. (O’Keeffe went on to win the 2014 Nobel Prize for Physiology or Medicine for his contribution to this research.) In later work, Nadel put forward what became known as the “multiple trace theory” of memory, according to which the hippocampus remains the principal neural structure involved in storage and retrieval of episodic memory (recall of events we have experienced), while semantic memory (recall of linguistically mediated facts, such as, for Americans, the significance of the year 1776) is based in the neocortex. Nadel has also been involved in following up on some of the implications of his early studies on the hippocampus, notably in such areas as the relationship between stress and memory and sleep and memory, as well as memory re-consolidation and the memory deficits associated with Down syndrome.

Nadel’s work on the neurological bases of Down Syndrome has led to novel therapeutic interventions that have enhanced the quality of life of Down patients, and for which he has received recognition in the form of the National Down Syndrome Society’s Award for Research and the Sisley-Lejeune International Prize for Research on Intellectual Disability. Nadel has authored or co-authored more than 175 peer-reviewed journal articles and book chapters, and is the author, co-author, or editor of some dozen books. He is a Fellow of the American Association for the Advancement of Science (AAAS).

**Academic Website**

**Selected Books**

Kenneth I. Pargament | Personality Psychology, Clinical Psychology

Pargament was born in Washington, DC, in 1950. He received his bachelor’s degree in psychology in 1972 from the University of Maryland, and his PhD in clinical-community psychology in 1977 from the same university. He is currently Emeritus Professor of Psychology at Bowling Green State University.

Pargament’s field of specialization has been the role of religious belief in psychological health and coping with stress. He has focused on developing a systematic theoretical framework, both for conducting empirical research on religion and psychology and for developing assessments and interventions of practical relevance to helping professionals. For example, Pargament developed the “RCOPE Questionnaire” designed to measure religious coping strategies, which he believes may be usefully grouped into three broad categories. First, there are “deferring” styles of religious coping, with an emphasis on surrender to God’s will; second, there are “self-directing” styles, in which the individual essentially recruits God to his or her own purposes;
and third, there are “collaborative” styles, in which God becomes a partner in the individual’s life project. Correlatively, Pargament has identified four attitudes toward religion on the part of psychotherapists: “rejectionists,” who disdain religion and refuse to recognize any therapeutic value in it; “exclusivists,” who regard religion as an essential component of therapy for everyone regardless of belief; “constructionists,” who are willing to incorporate religion into therapy, but who deny the objective existence of transcendent (or any other) reality; and “pluralists,” who recognize the reality of the transcendent, but also acknowledge the validity of different approaches to it. Pargament has courted controversy by questioning the overwhelmingly rejectionist status quo of the psychology profession, and by maintaining that religious training, preferably along pluralistic lines, ought to be a mandatory component of the education of psychotherapists.

Pargament is the author or co-author of around 175 peer-reviewed journal articles and book chapters, as well as the author or editor of five books. He is the recipient of numerous grants, awards, and prizes, has held a number of prestigious board memberships and editorships in his field, and is a Fellow of both the American Psychological Association (APA) and the American Psychology Society (APS).

Academic Website

Selected Books

- *Religion and Prevention in Mental Health: Research, Vision, and Action* (Routledge, 1992)
- *Forgiveness: Theory, Research, and Practice* (Guilford Press, 1999)
- *Spiritually Integrated Psychotherapy: Understanding and Addressing the Sacred* (Guilford Press, 2007)
Pinker was born in Montreal, Quebec, Canada, in 1954. He received his bachelor’s degree in psychology in 1976 from McGill University, and his PhD in experimental psychology in 1979 from Harvard University, where he studied under Stephen Kosslyn. He is currently Johnstone Family Professor of Psychology at Harvard University.

Pinker began his career with a focus on the computational theory of mind (the idea that the brain is a computer and thinking a program), particularly in relation to language. In line with the well-known work of Noam Chomsky, Pinker further argued that the capacity for language is instinctive with respect to deep grammatical structure (“universal grammar”), and that experience merely shapes this instinctive behavior into the specific forms (surface grammar and lexicon) of a particular language. His early work in psycholinguistics is too complex to go into here, but in a nutshell, he worked out through painstaking observations on young children some of the ways in which the verbal morphology of a child’s native language is inferred from the limited examples available to it. Pinker was also involved during the 1980s in a significant, if highly technical, dispute over “connectionist” models of mind and speech. (Connectionism, as it relates to cognitive psychology, is the idea that the form of computation employed by the mind is massively parallel, distributed processing—as opposed to the serial processing used by an ordinary laptop.) While this early psycholinguistics research won Pinker a solid reputation among his peers, it was his writings for a popular audience that made him a household name among the wider educated public. His first book for a mass readership, *The Language Instinct* (1994), drove home in elegant
prose the inarguable importance of the innate language faculty for our humanity. In *The Blank Slate* (2002), Pinker widened the discussion to include the ramifications of our inborn biological nature more generally, by looking at the history of the nature/nurture debate and arguing vigorously that since the balance of the scientific evidence weighs heavily in favor of nature, scientists ought to be at the forefront of efforts to ameliorate the human condition. Most recently, he maintained in *The Better Angels of Our Nature* (2011) that an objective analysis of human history gives reason for optimism, despite the fashionable pessimism of our cultural moment.

While controversial, Pinker’s fascinating, information-packed, and highly readable popular books have deservedly won him an enormous audience. Nor has it hurt that he is a well-known atheist activist, or that many of his books contain a subtext of secularist evangelism, weaving themes from evolutionary psychology throughout (see the entry for David M. Buss, above). In addition to his many essays, book reviews, and op-ed pieces for the popular press, Pinker has published around 180 peer-reviewed journal articles and book chapters, and is the author, co-author, or editor of some 14 books. He is the recipient of many grants, fellowships, awards, lectureships, editorships, and honorary degrees.

50 Top Atheists in the World Today

Michael Shermer Interview

Defending Malcolm Gladwell to Intellectuals

Academic Website

Selected Books

- *Connections and Symbols* (MIT Press, 1988)
Michael I. Posner | Cognitive Psychology

Posner was born in Cincinnati, Ohio, in 1936. He received his bachelor’s degree in physics in 1957 and his master’s degree in psychology in 1959, both from the University of Washington. He obtained his PhD in psychology in 1962 from the University of Michigan. He is currently Professor Emeritus of Psychology at the University of Oregon, as well as a Member of the Institute of Neuroscience there.

The focus of Posner’s work has been chiefly on the psychology and neurobiology of attention. In the course of his research, he has developed several important new experimental techniques and protocols. For example, he has used electrooculography (EOG) technology, which precisely tracks eye movements using a set of electrodes surrounding the eyes, to create a new research protocol that bears his name. The “Posner cueing task” enables very precise measurement of reaction times using a special visual field chart he developed that interacts with the EOG device. (“Reaction time” [RT] is the temporal lag between the presentation of a stimulus and the subject’s response; the measurement of RTs in general is known as “mental chronometry.”) This information, in turn, can be used in a wide variety of ways, in both clinical and experimental settings. For example, in a clinical setting the Posner cueing task may be employed to assess attention deficits in a subject.
following brain injury. On a more theoretical plane, the protocol may facilitate various inferences about the nature of the neural computations underlying attention. For instance, in a celebrated series of experiments involving the presentation of letters of the alphabet to a subject, Posner determined that physically determining whether two letters match has the shortest RT (= the easiest task in terms of computational resources), while applying a rule to determine whether two letters belong to the same category (e.g., vowel vs. consonant) has the longest RT (= the most difficult task), with name matching falling in the middle. Another protocol that Posner has played a crucial role in popularizing within the cognitive psychology community is the so-called “subtractive method,” which basically attempts to decompose a complex cognitive task into a sequence of simpler operations by comparing the effects of the presence and the absence of a given operation. The functional roles of the simpler operations can then be more easily studied individually using the techniques already mentioned.

Posner is the author or co-author of more than 330 peer-reviewed journal articles and book chapters, and the author, co-author, or editor of books. He is the recipient of far too many grants, fellowships, awards, prizes, honorary degrees, lectureships, editorships, and visiting professorships to mention, and has served on the boards of a great many academic bodies, research foundations, and government committees. A fellow of the National Academy of Arts and Sciences, and a Member of the National Association for the Advancement of Science (AAAS) and the National Academy of Sciences (NAS), in 2009 Posner was awarded the National Medal of Science.

**Academic Website**

**Selected Books**

- *Cognition: An Introduction* (Scott, Foresman, 1973)
- *Cognitive Neuroscience of Attention* (Guilford Press, 2004; 2nd ed., 2011)
Rosch was born in New York City in 1938. (Early in her career, she published under the name Eleanor Rosch Heider.) She received her bachelor’s degree in philosophy from Reed College, and her PhD in cognitive psychology from Harvard University. She is currently Professor of Psychology at the University of California, Berkeley.

Rosch works in the area of cognitive science which investigates the way the brain organizes and structures information about the world, also known as “categorization.” In human beings, mental categorization has both innate (biological) and acquired (learned) aspects. The problem consists both in teasing these contributions apart, and also in giving them a more specific theoretical characterization. Rosch is especially known for several empirically based contributions, such as our reliance on prototypes to characterize categories. The idea here is that we have an inborn propensity to give certain elements of a category (for example, “robin” in relation to the category “bird”) a more central role in drawing the category’s boundaries, while relegating other elements (“ostrich”) to a more peripheral role. Another result from her experimental studies was the notion that hierarchical taxonomic structures (for example, “chair/furniture”) are not arbitrary, but built up out of a bottom layer of most-basic elements. Finally, Rosch also did highly influential theoretical work that sought to clarify the very idea of categorization at a philosophical level. Here, she began by postulating two basic principles: first, the task of category systems is to provide maximum information with the least cognitive effort; second, the perceived world comes as structured information rather than as arbitrary or unpredictable attributes.[11] Using these two foundational principles in an argument, one may deduce that the task of categorization systems is fulfilled (maximum information is obtained with least cognitive effort) if mental categories map the perceived world structure as closely as
possible. Note the studied equivocation in this formulation regarding the ontological status of the “perceived” world structure (one might well wonder what the point of such a close mapping might be, if perceived world structure did not in turn map closely onto real world structure). Be that as it may, Rosch’s work formed the foundation for many subsequent studies across a very wide spectrum of academic sub-fields, including cognitive psychology, anthropology, philosophy, logic, computer science, theoretical biology, and critical theory. In some cases, it even inspired whole new intellectual movements, such as object-oriented ontology (now much employed in the design of computer databases).

Having been taken up by scholars of so many diverse scientific and philosophical perspectives, Rosch’s own work is difficult to categorize in a definitive fashion. Nevertheless, one thing is certain: academic influence doesn’t come much greater than this. Rosch is the author or co-author of many peer-reviewed journal articles and book chapters, and the co-author or co-editor of two books.

Academic Website

Selected Books

- *Cognition and Categorization* (Lawrence Erlbaum, 1978)
Michael L. Rutter | Developmental Psychology, Child Psychiatry

Rutter was born in Lebanon, where his English father worked as a doctor, in 1933. He returned to England with his family at an early age. In 1940, on the eve of World War II, Rutter was sent to the US, where he attended the Moorestown Friends School in New Jersey. After the war, he completed his secondary education in York, back in the UK. He entered the University of Birmingham Medical School in 1950, and received his qualifications to practice medicine in the UK (MRCS and LRCP) in 1955. He is currently Professor of Developmental Psychopathology at University College London.

Rutter’s career has been focused on psychiatric disorders of personality development from early childhood through adolescence. His ground-breaking work on “developmental neuropsychiatry,” in general, and on autism, in particular, has won for him the sobriquet, the “Father of Child Psychiatry” in the UK. His earliest work involved epidemiological studies of social deprivation among poor populations on the Isle of Wight and in London. In studying cognitive and emotional deficits in these populations, especially in children diagnosed with autism, Rutter combined traditional questionnaires and other means of gatherings vital statistics with new technologies, including DNA analysis and neuroimaging. Other topics he has studied over the years include the influence of families and schools on child development, reading disorders, and the comparative importance of genetic and environmental factors on normal and pathological development. One study for which Rutter won early acclaim was his 1972 book entitled *Maternal Deprivation Reassessed*, which was a careful re-evaluation of the evidence for and
against psychiatrist John Bowlby’s 1951 “maternal deprivation” theory (later expanded upon in his celebrated 1969 *Attachment and Loss* trilogy).[12] Rutter found that Bowlby’s thesis—maternal deprivation lies at the root of most developmental pathology and subsequent personality disorder—was at best oversimplified. Rutter pointed to many other factors besides the quality of mothering that may have a demonstrable influence on healthy psychological development, including genetic endowment, the wider family, the school, and various other social, institutional, and ecological environments. He suggested replacing Bowlby’s single-causal-factor model with a multivariate analysis of “vulnerability factors.”

Rutter is the author or co-author of more than 400 peer-reviewed journal articles and book chapters, and the author, co-author, or editor of some 40 books. In addition to receiving numerous awards, grants, fellowships, lectureships, and honorary degrees, in 1985 Rutter was named a Commander of the Order of the British Empire (CBE), and in 1987 he was appointed a Fellow of the Royal Society (FRS).

**Academic Website**

**Selected Books**

- *The Qualities of Mothering: Maternal Deprivation Reassessed* (J. Aronson, 1974)
- *Developmental Neuropsychiatry* (Guilford Press, 1983)
- *Psychosocial Disorders in Young People: Time Trends and Their Causes* (John Wiley & Sons, 1995)
- *Genetic Effects on Environmental Vulnerability to Disease* (Wiley, 2008)
Marianne Schmid Mast was born in 1965 in the small town of Olten in Switzerland, about halfway between Basel and Zurich. After initially studying business and economics and working for a computer company for a time, she entered medical school at the University of Zurich. However, she ended up taking a license (bachelor’s degree) in psychology from that university in 1996, and a doctorate—also in psychology and also from the University of Zurich—in 2000. She is currently Professor of Organizational Behavior in the Faculty of Hautes Études Commerciales, or HEC (which is to say, the Business School), of the University of Lausanne.

Schmid Mast’s research has centered on how individuals in dominance hierarchies interact with one other, both how they perceive their social interaction partners—above them, below them, and on the same hierarchical level with them—and how they communicate, both verbally and nonverbally. In more narrowly targeted research, she has studied the effects that first impressions have on interpersonal interactions and how people in organizational hierarchies evaluate each other, as well as the accuracy of the impressions of other people that subjects within such structures form. Her findings are quite general and apply to hierarchical organizations of all sorts; for example, her work has elucidated ways in which physician-patient communication may influence clinical outcomes. Schmidt Mast has also made pioneering use of technology to investigate interpersonal behavior and communication, as well as to analyze nonverbal behavior in social interactions. These include immersive virtual environment technology and computer-based automatic sensing. In 2006, she founded her own immersive virtual reality laboratory at the University of Neuchâtel. The laboratory, which since 2014 has been located at the University of Lausanne’s HEC, uses
immersive virtual reality both to study human social interaction behavior and also for interpersonal skills training. Using these and other techniques, Schmid Mast’s most recent work has been focused on such phenomena as the way in which self-perception, physiological arousal, and perceived competence or persuasiveness all interact in a social evaluation situation, both in simulated “self-preservation tasks,” such as a job interview, and in real-life situations. She has also used the results of such studies to evaluate the likelihood of “stereotype threat” (negative self-perceptions based on gender stereotypes) impacting women in social interactions.

Schmid Mast has published over 100 peer-reviewed journal articles and book chapters during the past 10 years alone (2007–2017), and is the author or co-editor of three books.

Academic Website

Selected Books

- *Gender Differences in Dominance Hierarchies* (Pabst Science Publishers, 2000)
- *Gender and Emotion: An Interdisciplinary Perspective* (Peter Lang, 2013)
Schröger was born in Munich, Germany, in 1958. After graduating from the Hochschule für Philosophie in Munich in 1982 with a Bakkalaureat in philosophy, he earned his Diplom in psychology in 1986 from the Ludwig-Maximilians-Universität, also in Munich. He then received his doctorate in 1991 and his Habilitation in 1996, both in psychology and both from Ludwig-Maximilians-Universität. He is currently Professor of Cognitive (including Biological) Psychology at the University of Leipzig, where he also directs the BioCog group of the International Max Planck Research School on the Neuroscience of Communication: Structure, Function, and Plasticity (IMPRS NeuroCom).

Schröger’s work carries on the great tradition of what used to be called “psychophysics,” which was in fact the beginning of the science of psychology as an intellectual discipline distinct from philosophy and the “moral sciences” (as work in what we would now call the “social sciences” used to termed) in the nineteenth century. Psychophysics (or “experimental psychology”) was pioneered by German scientists such as Gustav Fechner (1801–1887), Hermann von Helmholtz (1821–1894), and Wilhelm Wundt (1832–1920). Wundt actually worked at Schröger’s own institution—the University of Leipzig—and Schröger has edited his correspondence. Schröger’s own work has focused on audition (the sense of hearing) in relation to attention, perception, and memory. However, he has also done work on vision and on multimodal sensory processing. One of his major contributions has involved modeling prediction in relation to audition. In this work, Schröger has elucidated the sensory and neural underpinnings of the human ability to
interpret extremely rapid and complex auditory information, such as speech, on the basis of the optimization of predictive modeling, which is based in turn on regularities in environmental stimuli (in other words, past experience). Mechanistically, the brain constructs such optimal predictive models by calculating the errors in a stimulus sequence as the difference at each step between the predicted signal and the signal actually received.

Schröger is the author or co-author of more than 275 peer-reviewed journal articles and book chapters, and he is the author, co-author, or editor of 21 books and special editions of journals. In 2015, he was elected a Member of the Academy of Europe.

Academic Website

Selected Books

- *Einführung in die Statistik* [Introduction to Statistics] (Oldenbourg, 1989)
- *Konstanz und Lautheit* [Constancy and Loudness] (Hogrefe Verlag, 1991)
- *Biologische Psychologie* [Biological Psychology] (VS-Verlag, 2010)
- *Wilhelm M. Wundts Briefwechsel* [Wilhelm M. Wundt’s Correspondence] (University of Leipzig Institute for Psychology, 2011)
- *Menschliche auditive Verarbeitung beruht auf der Präaktivierung geräuschspezifischer Aktivierungsmuster im Gehirn* [Human Auditory Processing Based on the Preactivation of Sound-Specific Activation Patterns in the Brain] (ZPID, 2014)
Martin E.P. “Marty” Seligman | Personality Psychology

Seligman was born in Albany, New York, in 1942. He received his bachelor’s degree in philosophy summa cum laude in 1964 from Princeton University, and his PhD in psychology in 1967 from the University of Pennsylvania. He is currently Zellerbach Family Professor of Psychology at the University of Pennsylvania, as well as Director of the Penn Positive Psychology Center.

Seligman is a pioneer of so-called “positive psychology”—the psychology, not of the many forms of neurosis and unhappiness, but of what makes people happy. However, he has also done significant work in the more traditional fields of personality psychology that deal with unhappiness. Indeed, early in his career, he was best known for his theory of “learned helplessness,” which is the idea that people in traumatic situations from which they cannot escape tend to carry over the sense of their own powerlessness into other situations which they could (but do not) impact positively by their behavior. According to Seligman’s theory, the phenomenon of learned helplessness lies at the root of clinical depression and related mental illnesses. In spite of the popularity of this influential idea, however, Seligman’s reputation today rests equally or more on his work on the wellsprings of resilience in human character—the personality traits that make for what he terms “authentic happiness.” Working together with co-author Christopher Peterson, Seligman developed a taxonomy of “character strengths and virtues” that he published in 2004 in a book of that name. The specific contours of Seligman’s classification scheme have evolved over time, the latest iteration being founded on the classical notion of “well-being,” or “flourishing,” published in his 2011
Flourish. This classification can be summarized by five positive character traits, or virtues, that make for an optimistic and resilient personality (known collectively by the acronym, PERMA), namely:

1. Positive emotion (the capacity to experience happiness, pleasure, joy, etc.)
2. Engagement (the capacity to experience “flow”—see entry for Mihály Csikszentmihályi, above)
3. Relationships (the capacity for friendship and intimacy)
4. Meaning (the capacity to experience a sense of belonging to something larger than oneself)
5. Achievement (the capacity to accomplish tasks purely for their own sake)

Seligman is the author or co-author of around 280 peer-reviewed journal articles and book chapters, and the author, co-author, or editor of some 20 books. Many of his books have appeared in multiple foreign editions, including one (Authentic Happiness) in more than 40 languages!

Seligman has received a great many awards, prizes, grants, fellowships, and honorary degrees, and has served on numerous boards of academic journals and other public and private institutions. He is a Fellow of the American Association for the Advancement of Science (AAAS). In 2010, he was invited to give the prestigious Tanner Lectures on Human Values at the University of Michigan.

Academic Website

Selected Books

- Biological Boundaries of Learning (Appleton-Century-Crofts, 1972)
- Helplessness: On Depression, Development, and Death (W.H. Freeman, 1975)
- Learned Optimism: How to Change Your Mind and Your Life (Knopf, 1991)
- The Optimistic Child: Proven Program to Safeguard Children from Depression and Build Lifelong Resilience (Houghton Mifflin, 1996)
Roger N. Shepard | Cognitive Psychology

Shepard was born in Palo Alto, California, in 1929. He received his bachelor’s degree in 1951 from Stanford University, and his PhD in psychology in 1955 from Yale University. After graduating, Shepard worked for a time at Bell Labs, before accepting a teaching position at Harvard University. He is currently Ray Lyman Wilbur Professor Emeritus of Social Science at Stanford University.

Shepard’s work has been primarily focused on visual spatial perception. In particular, he has studied subjects’ ability to manipulate in their imagination representations of three-dimensional objects projected onto a plane—a task called “mental rotation.” For example, a subject might be asked to determine whether 3-D figures projected onto a plane in different orientations are congruent with one another or are mirror images (entantiomorphs). This research was conducted mainly to throw light on how the brain functions in natural environments; however, mental rotation tasks have become a standard part of psychologists’ cognitive assessment toolkit (such as intelligence tests). In addition, Shepard invented a new method of graphically representing statistical data called “multidimensional scaling.” In other work, Shepard has conducted experiments on the auditory system. He is the
inventor of the Shepard tone, which is an auditory illusion somewhat analogous to the well-known visual illusions (such the Kanizsa triangle). In the Shepard tone phenomenon, a sound is created by superposing sine waves an octave apart, which, when played with the bass pitch moving upward or downward, is referred to as the Shepard scale. The Shepard tone and accompanying Shepard scale create the auditory illusion of a tone that continually rises or falls in pitch, yet without ever getting any higher or lower. A distinctive feature of Shepard’s work has been his effort to extract rigorous laws expressible in mathematical form from his experimental data. In this respect, Shepard long sought a “universal law of generalization”—a theory of the way the mind generalizes from past experience to new situations—which he considered to be the Holy Grail of learning theory in cognitive psychology. He eventually published an elegant theory employing simple Bayesian principles, which proved to be one of his most influential papers.[13] Another feature of this work was his notion of a “consequential region” of a sampling space, which is somewhat analogous to Rosch’s notion of a “basic level” of objects in people’s innate categorization schemes (see the entry on Rosch, above).

The author or co-author of numerous highly cited peer-reviewed journal articles and book chapters, as well as two books, Shepard is a Member or Fellow of the National Academy of Arts and Sciences, the National Association for the Advancement of Science (AAAS), and the National Academy of Sciences (NAS). In 1995, Shepard received the National Medal of Science.

**Academic Website**

**Selected Books**

- *Mental Images and Their Transformations* (MIT Press, 1982)
Elizabeth S. Spelke | Developmental Psychology, Social Psychology

Spelke was born in New York City in 1949. She received her bachelor’s degree in social relations in 1971 from Radcliffe College (where she worked with Jerome Kagan), and her PhD in psychology in 1978 from Cornell University (where she studied under Eleanor Gibson). She is currently Marshall L. Berkman Professor of Psychology in the Faculty of Arts and Sciences at Harvard University, as well as a member of Harvard’s Graduate School of Education and Director of the university’s Laboratory for Developmental Studies.

Spelke’s work has focused on the development of the specifically human cognitive faculties, including the capacities for doing mathematics, for constructing symbolic representations such as maps, for developing taxonomic categories, and for reasoning about the emotions of other humans and the social groups they live within. Spelke has studied these capacities by using a multi-faceted approach, including the investigation of: their origins in human infants and children; their relation to the capacities of nonhuman primates; and their manifestation in diverse cultural settings. In her work with infants, she has made extensive use of the technique, originally developed by Robert Fantz, known as “preferential looking,” in which investigators present babies with different images and measure the length of time they spend looking at them. (It is assumed in such studies that the length of attention a baby devotes to something is an index of the thing’s inherent interest for the baby.) Spelke is perhaps best known for her work on unraveling the comparative contribution of biology and culture to gender differences in mathematical ability and attainment in modern societies. While Spelke
supports the idea that many or most of our cognitive abilities have an innate, or biological, foundation, after long empirical study she has concluded that there is no evidence for any systematic biological difference between males and females with respect to any of the several cognitive capacities underlying general mathematical ability (numerical reasoning, spatial reasoning, logical reasoning, etc.). Thus, we must look to social and cultural factors to explain the disparity observed in the mathematical interest and attainment between the sexes.

Spelke is the author or co-author of numerous peer-reviewed journal articles and book chapters. A Fellow of the American Academy of Arts and Sciences, she was invited to give the Jean Nicod Lecture for 2009, entitled “Sources de la connaissance humaine” [Sources of Human Knowledge], at France’s Centre National de la Recherche Scientifique (CNRS).

Academic Website

45. Robert J. Sternberg | Developmental Psychology, Cognitive Psychology

Sternberg was born in Newark, New Jersey, in 1949. He received his bachelor’s degree in psychology summa cum laude in 1972 from Yale University (where he studied with Endel Tulving), and his PhD in psychology in 1975 from Stanford University (where Gordon Bower was his adviser). He is currently Professor of Human Development at Cornell University.

Sternberg is best known for his influential “triarchic theory of intelligence,” which represented a radical break with the overwhelmingly psychometric
approach that had dominated the study of human intelligence up to that time, in favor of a more developmental, cognitive, and biological approach. In a nutshell, he believes that while traditional IQ tests are a good measure of “book smarts”—and thus are a fairly reliable predictor of success in an academic environment—overall human intelligence is far broader than what IQ test measure. There is also common sense and “street smarts,” involving the capacity to adapt to, and fluently and successfully interact with, the natural, man-made, and social environments. More specifically, Sternberg has postulated that broad-spectrum human intelligence consists of three main components or modules:

- **Analytical intelligence.** The ability to solve pre-set, well-defined mathematical and verbal tasks with only one correct solution (the traditionally recognized form of intelligence measured by standard IQ tests).
- **Creative (or synthetic) intelligence.** The ability to solve novel tasks in unexpected situations, where many solutions are possible.
- **Practical intelligence.** The ability to comprehend and carry out tasks successfully in everyday-life settings.

Sternberg later developed the Sternberg Triarchic Abilities Test to measure this broader range of intelligence. He has also worked on related topics such as cognitive styles. Sternberg has authored or co-authored over 1400 peer-reviewed journal articles, book chapters, book reviews, op-ed pieces, and other essays for the popular press, as well as authoring, co-authoring, or editing more than 100 books for academic and popular audiences. Moreover, his peers have bestowed upon him an enormous number of prizes, awards, grants, fellowships, distinguished lectureships, honorary degrees, and other honors.

Sternberg has also been the founder, editor-in-chief, associate editor, consulting editor, contributing editor, or member of the editorial of some 50 academic journals. In addition, he has occupied a number of provostships, deanships, and other administrative posts, as well as serving for a time as President of the University of Wyoming. Sternberg is a Fellow of the American Psychological Association (APA), the American Academy of Arts and Sciences, and the American Association for the Advancement of Science (AAAS).
Personal Website

Selected Books

- *Handbook of Creativity* (Cambridge University Press, 1998)
- *Practical Intelligence in Everyday Life* (Cambridge University Press, 2000)
- *Handbook of Intelligence* (Cambridge University Press, 2000)

46. Ágnes Szokolszky | Cognitive Psychology, Ecological Psychology

Szokolszky was born in Budapest, Hungary, in 1956. She received her bachelor’s degree from Eötvös Loránd University (ELTE) in Budapest. She obtained her PhD in 1993 from the University of Connecticut, where she was attached to the Center for the Ecological Study of Perception.
and Action (CESPA), one of the foremost centers in the world for ecological psychology—the discipline founded by James J. Gibson that is devoted to the study of cognition as a feature of an embodied agent situated in its environment. Szokolszky is currently Head of the Department of Cognitive and Neuropsychology within the Institute of Psychology in the Faculty of Arts of the University of Szeged (SZTE), in Hungary.

Her work has centered on ecological psychology as it relates to the cognitive development of children, especially the way in which Gibsonian “affordance” theory throws light on how the mental manipulation of make-believe objects in children’s play is possible, how this unique cognitive capacity develops, and the important role it plays in healthy adult cognitive performance. (An “affordance” is an objectively existing feature of an organism’s environment that is however co-constructed by structural features of the environment and the organism’s own functional capacities; thus, a tree limb exists objectively, but only “affords” an opportunity for grasping for a creature, like a monkey, capable of using it for that purpose.) Szokolszky has also studied pathologies of the mental capacity for playing with make-believe objects, as in autism. Similar to the aforementioned topics involving ecological psychology, is another project Szokolszky has developed for the better understanding of the origins and function of metaphor in the various stages of cognitive development. Some of her other projects include philosophical reflection on the fact of embodiment for cognitive science, and critical approaches to understanding the history and current practice of psychology as a science.

Szokolszky has published numerous peer-reviewed journal articles and book chapters, both in Hungarian and in English, many with the aim of making her countrymen better acquainted with the discipline of ecological psychology. She has also published a number of articles and books of a pedagogical nature in both languages.

**Academic Website**

**Selected Books**

- *Környezet-pszichológia [Environmental Psychology]* (Akadémiai Kiadó, 2006)
- *Using Scholarly Literature in Psychology* (JATEPress, 2009)
Carol A. Tavris | Social Psychology

Tavris was born in Los Angeles, California, in 1944. She received her bachelor's degree in sociology and comparative literature from Brandeis University, and her PhD in social psychology in 1971 from the University of Michigan. After graduating, she taught psychology at UCLA and the New School for Social Research. She is currently an independent writer and lecturer.

One of Tavris's main topics of research, among others within the sub-discipline of social psychology broadly understood, has been gender identity and equality. Her popular college textbook, *Psychology*, co-written with Carole Wade and first published in the 1980s, was one of the first introductory texts to present research on gender and culture to a wide student audience. Other topics she has first researched during her academic career, and then presented to a broad audience during her career as a freelance writer, include the debunking of “pop-psychology” myths (such as the Freud-inspired myth that it is better to express one’s anger than to hold it in check) and the role that cognitive dissonance plays in our mental economy (often causing us to reject new evidence that does not fit in with our current beliefs).

Tavris is the author, co-author, or editor of some 10 books, as well as the author or co-author of more than 300 peer-reviewed journal articles, book chapters, books reviews, op-ed pieces, essays, and other popular writings. She has written for the *New York Times*, the *Wall Street Journal*, the *Los Angeles Times*, the *Times Literary Supplement*, and *Scientific American*, among other publications. Since 2014, she has written a regular column for *Skeptic* magazine under the title, “The Gadfly.” Tavris is also a sought-after speaker who has delivered more than 100 invited lectures and keynote addresses. She is a Fellow of the American Psychological
Michael Tomasello | Biological Psychology, Comparative Psychology, Cognitive Psychology

Tomasello was born in Bartow, Florida, in 1950. He received his bachelor’s degree in psychology in 1972 from Duke University and his PhD in experimental psychology in 1980 from the University of Georgia. He is currently Professor of Psychology at Duke University and Co-Director of the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany.
Tomasello’s research has been focused on the question of what makes human beings so different from all other animals. Through careful laboratory experiments aimed at comparing the abilities of young chimpanzees and young children of various ages engaged in similar cognitive tasks, he has been able to establish a wide array of reliable similarities and differences in the mental development of each species. Tomasello’s main conclusion is that the crucial ability distinguishing humans from nonhuman primates is our ability to understand the fact that other members of our species have a mental life similar to our own, but with their own particular point of view, their own intentions (which may differ from ours), and their own knowledge (which may be limited by circumstances and differ from ours in various ways). More specifically, he believes that the characteristically human way of life was made possible by our ability to direct the attention of group members jointly on a single, collective purpose. In a nutshell, he believes that a uniquely social form of intelligence lies at the root of the cognitive and emotional gulf between human beings and other animals.

Tomasello has authored or co-authored more than 650 peer-reviewed journal articles and book chapters, and is the author- co-author, or editor of some dozen books. He has received numerous awards, grants, fellowships, honorary degrees, and visiting professorships, and acts as an editorial board member or reviewer for around 60 professional journals. Tomasello has been elected a fellow of the national academies of science of Germany, Hungary, and Sweden.

**Academic Website**

**Selected Books**

- Beyond Names for Things: Young Children’s Acquisition of Verbs (Psychology Press, 1995)
- Primate Cognition (Oxford University Press, 1997)
Endel Tulving | Cognitive Psychology, Biological Psychology

Tulving was born in the town of Petseri in the short-lived first Republic of Estonia in 1927. (Estonia was absorbed into the USSR in 1940, and the second Republic was established in 1991; however, Tulving’s birthplace, now known as Pechory, presently lies just across the border inside Russia.) Tulving’s family fled Estonia just ahead of the Red Army in 1940, settling briefly in Germany where Tulving completed his secondary education. In 1949, he emigrated to Canada, where he obtained his bachelor’s and master’s degrees in psychology at the University of Toronto. He received his PhD in experimental psychology in 1957 from Harvard University. He is currently Emeritus Professor in the Department of Psychology of the University of Toronto, as well as Tanenbaum Chair in Cognitive Neuroscience at the Rotman Research Institute of the Baycrest Health Sciences Centre in Toronto and Clark Way Distinguished Visiting Professor of Psychology and Cognitive Neuroscience at Washington University in St. Louis.

The focus of Tulving’s research has been the human memory system. He is especially well known for his distinction between two different forms of long-term memory, semantic and episodic, which was one of the earliest proposals involving cognitive modules. On experimental and theoretical grounds, Tulving predicted that two distinct modules must exist within the overarching memory
system: episodic memory, which is our ability to remember faces, places, objects, and so on that are familiar to us, as well as events that have occurred to us in the past; and semantic memory, which is our ability to recall linguistically mediated facts, such as names and dates, meanings of words and concepts, historical events, and so forth. Subsequent empirical research has confirmed that these two abilities are supported by different regions of the brain. Tulving has made a number of other theoretical advances in the study of memory, as well. For example, he has proposed an “encoding specificity” principle, which states that the retrieval cue involved in recall of an episodic memory must have at least a partial informational overlap with the memory to be retrieved. This idea has important clinical implications, since according to the theory an episodic memory deficit may be due to damage either to the original memory trace or to the retrieval mechanism.

Tulving is the author or co-author of some 225 peer-reviewed journal articles and book chapters, and is the author, co-author, or editor of five books. Tulving is a Fellow of the Royal Society of Canada, the Royal Swedish Academy of Sciences, the US National Academy of Sciences, and the Royal Society of London (FRS). In 2006, he was made an Officer of the Order of Canada (OC), that country’s highest civilian honor.

Academic Website

Selected Books

- *Organization of Memory* (Academic Press, 1972)
- *Elements of Episodic Memory* (Oxford University Press, 1983)
- *The Oxford Handbook of Memory* (Oxford University Press, 2000)
Zimbardo was born in New York City in 1933. He received his bachelor’s degree in psychology, sociology, and anthropology *summa cum laude* in 1954 from Brooklyn College. He obtained his master’s degree in psychology in 1955 and his PhD in psychology in 1959, both from Yale University. He is currently Professor Emeritus of Psychology at Stanford University.

Zimbardo’s research has focused on the way individual behavior is conditioned by structural social factors. In his most famous experiment, he arranged for 24 student volunteers to be randomly assigned to the roles of “guards” and “prisoners” in a mock prison built in the basement of a Stanford University Psychology Department building (whence the name, the “Stanford Prison Experiment”). The experiment showed that, given the realistic, prison-like experimental set-up, it was relatively easy for the students to assume their assigned roles as guards or prisoners, eventually exhibiting pathological behaviors such as sadism and depression. While it has been severely criticized on both methodological and ethical grounds, the Stanford Prison Experiment remains one of the most famous in the history of psychology, and is still considered a valuable demonstration of the ease with which ordinary, psychologically normal individuals may be induced to behave pathologically by their social circumstances. It should also be noted that philosopher Hannah Arendt’s thesis of the “banality of evil”[14] and psychologist Stanley Milgram’s experiments on obedience to authority[15] both corroborate Zimbardo’s results. In *The Lucifer Effect*, published in 2007, Zimbardo answered his critics, reflecting on the torture conducted at Abu Ghraib prison in Iraq, and
asking the question about people who conform to wicked institutional norms: “Are they inexplicable, can we not understand them?” He concludes with a list of seven crucial factors present in such situations, including notably anonymity and diffusion of personal responsibility. In other work, Zimbardo has explored related themes regarding the social roots of individual pathology in such areas as shyness and post-traumatic stress disorder. He has also published work on the importance of ideals and role models—especially, the ideal of heroism in everyday life—for resisting peer pressure. He has also proposed a new form of psychotherapy called Time Perspective Theory, which in a nutshell consists of analyzing the temporal aspects of one’s own biography according to a positive-negative, past-present-future, six-cell grid, and reframing one’s beliefs and emotions accordingly.

Zimbardo is the author or co-author of well over 300 peer-reviewed journal articles and book chapters, as well as the author, co-author, or editor of more than 20 books. The recipient of a large number of awards, grants, fellowships, consultancies, board membership appointments, invited lectureships, and honorary degrees, as well as numerous presentations, lectures, talks, and radio and television interviews directed towards popular audiences, Zimbardo is a Fellow of the American Psychological Association (APA), the American Psychological Society (APS), and the American Association for the Advancement of Science (AAAS).

Personal Website

Selected Books

- *The Cognitive Control of Motivation: The Consequences of Choice and Dissonance* (Scott, Foresman, 1969)
- *Shyness: What It Is What to Do About It* (Addison-Wesley, 1977)
- *The Lucifer Effect: Understanding How Good People Turn Evil* (Random House, 2007)
• *The Time Cure: Overcoming PTSD with the New Psychology of Time Perspective Therapy* (Jossey-Bass, 2012)
• *Man, Interrupted: Why Young Men are Struggling and What We Can Do About It* (Conari Press, 2016)
• *Living and Loving Better With Time Perspective Therapy: Healing from the Past, Embracing the Present, Creating an Ideal Future* (Exposit Books, 2017)

Notes

1. Leda Cosmides’s [UC-Santa Barbara website](http://cosmides.ucsb.edu/).
5. Note that the French-British psychologist David Lewis should not be confused with the philosopher David K. Lewis, the psychiatrist David A. Lewis, or the evolutionary psychologist David M.G. Lewis, all of whom are Americans.
7. “*Dr. Andrew Meltzoff: Born Learning*” (CGTN America [China Global Television Network], January 2, 2016).
8. Note that the evolutionary psychologist Geoffrey F. Miller should not be confused with either the NYU Law Professor Geoffrey P. Miller or the bioethicist and Yale Professor Emeritus of Pediatric Neurology, Geoffrey Miller.