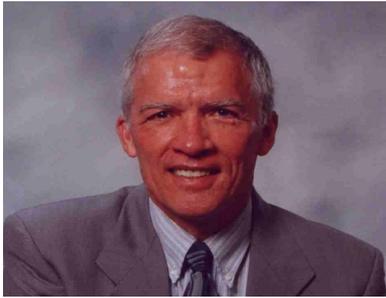


## Simonton Nomination Letter for the 2013 APF Joseph B. Gittler Award



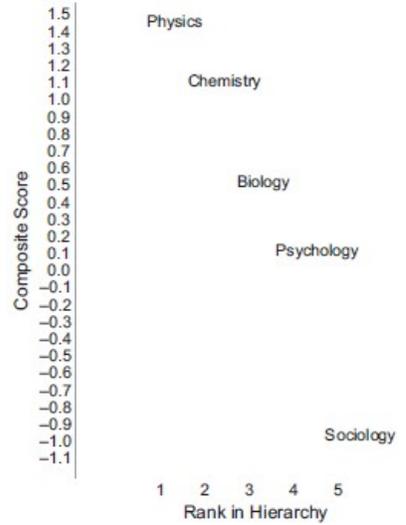
Dean Keith Simonton's distinctive research program has been emphatically multidisciplinary from the onset of his career: By applying econometric methods to the history of Western civilization from the ancient Greeks to the 20th century, his highly ambitious 1974 doctoral dissertation investigated the cultural and political factors underlying creativity, discovery, and invention in science, philosophy, religion, literature, music, and the visual arts. Since then, he has less ambitiously focused on specific creative domains—including both philosophy and psychology—or else has examined other civilizations, especially China and Japan. Nonetheless, at the beginning, the research was primarily empirical: His goal was to discover how the phenomena of genius, creativity, and leadership were manifested at individual and sociocultural levels. The only genuine philosophical side to these early endeavors was his attempts to connect historiometric research with philosophies of history and of aesthetics, efforts manifested in his 1990 book *Psychology, Science, and History: An Introduction to Historiometry*. Over the years, Simonton has treated such issues as the Hegelian dialectic operating in intellectual history, the Marxist conception of creativity reflecting material conditions, the Hempelian covering law concept applied to explanations in psychology's history, Kuhn's theory of scientific revolutions, Carlyle's "Great Person" theory of history, Tolstoy's sociocultural determinist or "Zeitgeist" theory of leadership, Kant's definition of genius in the fine arts, and Susanne Langer's distinction between discursive and presentational symbols.

In the early 1980s, however, Simonton became interested in working out the implications of the BVSR theory that Donald T. Campbell presented in his classic 1960 *Psychological Review* article "Blind Variation and Selective Retention in Creative Thought as in Other Knowledge Processes." Although Campbell was an extremely competent empirical researcher and methodologist, his own elaborations of BVSR were directed toward evolutionary epistemology. Even if the latter development had considerable impact on philosophical thinking, particularly in the philosophy of science, the empirical features of BVSR had yet to be scrutinized by psychologists. Hence, Simonton conducted a prolific series of inquiries using a diversity of methods, such as historiometrics, single-case studies, mathematical models, and computer simulations. Taken together, BVSR was shown to provide a comprehensive basis for understanding creativity, discovery, and invention. This conclusion was first most fully documented in his 1999 book *Origins of Genius: Darwinian Perspectives on Creativity*. A few years later, in *Great Psychologists and Their Times: Scientific Insights into Psychology's History*, Simonton first speculated that BVSR theory might be used to comprehend the advent of new knowledge in psychological science. Within a decade, this speculation was to receive some tangible support.

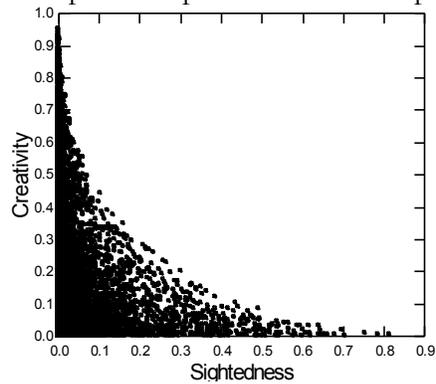
Thus far, Simonton focused on the psychological aspects of BVSR theory, but in the first decade of the 21<sup>st</sup> century, he became fascinated with its philosophical features. This shift had two inspirations.

First, he became attracted to what at first seemed a totally unrelated problem: the Comtean hierarchy of the sciences. The philosopher Auguste Comte had originally proposed that the main scientific disciplines could be formed into a hierarchy, namely, mathematics, astronomy, physics, chemistry, biology and sociology. Although researchers in the Mertonian school of the sociology of science challenged the existence of a hierarchy that (only) apparently placed their discipline at the bottom, Simonton presented statistical analyses indicating that the hierarchy actually had an empirical

justification, with psychology fitting between biology and sociology, but somewhat closer to the former (see figure to right). The first analyses were offered in his *Great Psychologists*, but were later corroborated by the addition of several new discipline characteristics. Furthermore, in looking at the numerous attributes that distinguished the disciplines—most notably conceptual precision and peer consensus—he began to argue that the hypothesized ordering partly reflects the degree to which knowledge generation in the discipline depends on BVS. Disciplines dealing with much more complex phenomena are necessarily less able to impose logical and empirical constraints that limit that dependence. This argument was most recently expanded in his chapter for the *Philosophy of Creativity*, an edited volume that includes the contributions of both philosophers and psychologists to the same fundamental problem: the origins of creative ideas.



Second, Simonton encountered post-2000 philosophical treatments of BVS theory, especially those by Thomas Nickles and Maria Kronfeldner (pro and con, respectively). These analyses revealed that BVS was in dire need of a formal conceptual treatment. Neither proponents nor opponents had actually defined the central terms of the debate. Campbell himself never explicitly defined what he meant by a “blind variation,” and he provided no definition whatsoever of “creative thought” or “knowledge processes.” Taking advantage of relevant philosophical work, and building upon the criteria used by the United States Patent Office, Simonton reformulated the entire theory in terms of each idea’s initial probability, final utility, and the latter’s prior knowledge value. This reformulation was then systematically applied to problem solving, scientific discovery, and combinatorial products. Of special importance is the implication that pure blindness and sightedness form endpoints of a



continuum. Moreover, the relation between an idea’s placement on this continuum and its contribution to knowledge should follow a triangular distribution with a distinctive convex upper boundary (see figure to the left taken from a Monte Carlo simulation). Although highly sighted ideas cannot possibly be creative, highly blind ideas must vary greatly in creativity, with the vast majority proving useless. Hence, BVS is required to winnow out the scarce wheat from the abundant chaff at the blind end of this distribution—especially given that the biggest grains are located where the chaff is most voluminous. That is, the greatest successes are found where the risks of failure tend

to maximize. All told, Simonton’s updates of BVS theory incorporated an impressive variety of philosophical ideas, including those of Alexander Bain, Ernst Mach, William James, Henri Poincaré, Karl Popper, Stephen Toulmin, Daniel Dennett, and Elliott Sober. The discussion even briefly touches on such issues as Plato’s Meno Problem in epistemology and the “No Free Lunch Theorem” in algorithmic optimization. In all, it can be argued that this modern formulation renders BVS theory the most inclusive treatment of the origins of creative ideas, new knowledge, and novel adaptations. Any alternative but viable analysis represents no more than a special case. Not only is BVS strongly justified on both psychological and philosophical grounds, but it also has been shown to feature striking repercussions regarding the perennial controversy about personal free will—an ancient philosophical question that has profound relevance for psychology. These implications circumvent problems linked with both determinism and indeterminism.

Simonton's prolific output includes 154 journal articles, 107 book chapters (32 in handbooks), 39 entries in 21 encyclopedias, and 12 books (plus 148 editorials, commentaries, replies, book and film reviews, and interviews). He has published 8 articles targeted for peer commentary, 3 of these focusing on some aspect of BVSR, 1 on psychology's place in the Comtean hierarchy of the sciences, and 1 on the epistemological status of behavioral generalizations in histories of psychology. In addition, this research has had considerable impact on the research literature. For example, his work has received 11,911 citations. In fact, 314 publications have been cited at least once, 183 have garnered at least 10 citations each, and his overall *h* index is 52. Three books have earned more than 600 citations each, including his BVSR-inspired *Origins of Genius*, which also won the William James Book Award. Additional major research honors include the Sir Francis Galton Award for Outstanding Contributions to the Study of Creativity, the Rudolf Arnheim Award for Outstanding Achievement in Psychology and the Arts, the Theoretical Innovation Prize in Personality and Social Psychology, the George A. Miller Outstanding Article Award, 2 awards from the National Association for Gifted Children (the E. Paul Torrance and the President's), and 3 Awards for Excellence in Research from the Mensa Education and Research Foundation. Moreover, he is Fellow of 6 scientific organizations, such as the American Association for the Advancement of Science and the Association for Psychological Science, and is Fellow in 11 divisions of the American Psychological Association, including Division 24, the Society for Philosophical and Theoretical Psychology. He has also served as President of 2 APA divisions—the Society for General Psychology (Div. 1) and the Society for the Psychology of Aesthetics, Creativity and the Arts (Div. 10)—as well as President of the International Association of Empirical Aesthetics. Finally, his Division One Presidential Address at the 2012 Orlando APA dealt with psychology's status as a "STEM discipline" from the perspective of his extensive inquiries into the hypothesized Comtean hierarchy. A year later, at the Honolulu APA, he will be giving an Invited Address on creative thoughts as acts of free will—yet another effort to link philosophy and psychology.

Taken as a whole, Simonton's body of high-impact work provides a strong case for his being worthy of the American Psychological Foundation's Joseph B. Gittler Award. By multiple means, he has made significant contributions to the philosophical foundations of psychological inquiry.

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