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Gardner digs to the roots

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Are Universes Thicker than Blackberries?
By Martin Gardner
Norton, 288 pages, \$39

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After more than 50 years and dozens of books, Martin Gardner, now 88, remains an unflagging proponent of a philosophy which, in its most general gist, could be termed "annunciate, dammit!" Make sense. Don't obfuscate. State clearly and precisely what you believe in and why. Think long and deeply before you speak (when possible) and, always, before you write. Above all, suffer no fool, embrace no balderdash. Apply the light of logic and reason and you shan't go wrong.

As Weltanschauungs go, Gardner's is neither trivial nor esoteric. Arguably, we live in an age in which much of the populace substitutes superstition or vigorously pursued partisan politics for hard-won knowledge and rigorous mental acuity. It is Gardner's gift to understand better than most of us that such intellectual lifelessness does have troubling consequences that cut across all strata of culture and politics. As he points out in *From the Wandering Jew to William F. Buckley Jr.* (2000), it was the failure of the jury to understand the accuracy of DNA testing that led to the acquittal of O. J. Simpson in the murder of his wife, Nicole. Today, in Canada, there is an apparent consensus to spend billions to implement the Kyoto agreement, even though most scientists concur it will have little or no impact on global climate change.

Indeed, Gardner has a knack for tracing dysfunction to a root cause. More provocatively, it is Gardner's Socratic flair for digging up and doggedly pointing out niggling half-truths and inconsistencies that often provide a first clue that our sacred cows may not be so sacred. In this collection of essays and reviews, culled from columns that first appeared in *The Skeptical Inquirer* and other publications, Gardner takes on two such idols revered by many scientists, Karl Popper and the notion of multiple universes.

The idea that there are an infinity of universes (as suggested by the title of his latest book, *Are Universes Thicker than Blackberries?*) springs from the Many Worlds Interpretation (MWI) of quantum mechanics, a view supported by scientific luminaries such as Murray Gell-Mann and Steven Weinberg. According to MWI, at

every instant when a quantum measurement is made that has more than one possible outcome, the universe splits into two or more universes. Anything that can happen (Somalia captures the gold medal in Olympic hockey), does happen, and the end result is billions of parallel universes.

Gardner believes that it is absurd to take MWI literally to mean that endlessly sprouting universes are "out there"; he argues that the very concept violates Occam's razor, the law of harmonious economy which compels scientists to keep entities (including universes) to a minimum. His declaration, however, that "most working physicists simply ignore the theory as nonsense," is itself questionable (see aforementioned noteworthy MWI advocates).

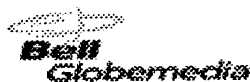
The most familiar illustration of the Popperian philosophy is the claim that a billion white swans permits us to only tentatively conclude that all swans are white. We must hedge even this much certainty against the appearance of one unobserved black beauty, Popper held. Many journalists, philosophers and not a small number of working scientists have drawn succour from Popper's form of radical skepticism and the limits it placed on inductive reasoning, or our ability to make generalizations about the world. According to Popper, science proceeds not through confirmation, but through falsification.

Gardner, in so many words, calls Popper daft. In practice, scientists do not seek falsification, but confirmation that, say, Earth-sized planets exist beyond our solar system. As each new planet is found, Gardner argues, what's the point of saying the discovery tends to falsify the conjecture there are no small planets beyond our solar system.

In these and other essays, the reader gains access to Gardner's usual polyglot of cross-references and cultural source material: Rudolf Carnap, Henry Miller, Zen Buddhism, Shirley MacLaine. The names, anecdotes and titles of books and articles sprinkle down and across the page, interconnected galaxies of ideas, conjectures and opinions. Yet, on occasion, the reader feels nearly asphyxiated by the sheer barrage, and wishes Gardner would sometimes rein in the breadth of his interests and takes on the world. What purpose, for example, does another detailed documentation of the bad behaviour of Ernest Hemingway serve, other than to prove writers and artists cannot live up to the high ethical and moral standards embraced (ahem) by the rest of humanity? The same holds for Gardner's fixation with dissecting the deceits of paranormal phenomena, such as channeling, primal scream therapy and telekinetics, topics, in my view, that do not deserve the attention of Gardner's brain.

But, at the end of the day (and the book), to paraphrase Hemingway, we are better to have the weaknesses of the man for his strengths. Selecting merely what we want to read in this collection, we will still be immeasurably more enlightened than when we began, thanks to a man on a life-long mission to call a spade a spade, and a fool a fool.

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