criticism, is not to everybody's taste. Not faced with such constraints, the Express went on, "One does not trouble to analyze the ravings of a madman. One shrugs one's shoulders, laughs, and forgets." The more polite London Times, reviewing Doyle's previous book, referred to Doyle's "incredible naiveté," while the Nation stated, "The book leaves one with a rather poor opinion of the doctor's critical abilities" (169). And when even an investigator as incredibly gullible as J.B. Rhine (who went on to authenticate ESP in a horse) saw through one of Doyle's pet mediums, Doyle placed a notice in the Boston newspapers, "J.B. Rhine is an Ass" (203).

Houdini was religiously conservative, even disowning one of his brothers for violating one of Leviticus's sectarian taboos (218-219). And when he testified before a Congressional committee in support of an anti-fortune-telling bill, he said:

This is positively no attack upon a religion. Please understand that emphatically. I am not attacking a religion. . . . But this thing they call 'spiritualism,' wherein a medium intercommunicates with the dead, is a fraud from start to finish. There are only two kinds of mediums, those who are mental degenerates and who ought to be under observation, and those who are deliberate cheats and frauds. I would not believe a fraudulent medium under oath; perjury means nothing to them.... Millions of dollars are stolen every year in America, and the Government [has] never paid any attention to it, because they look upon it as a religion.

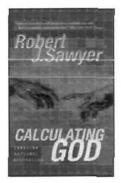
Substitute "televangelism" for "spiritualism," and the obvious response is, "So what else is new?" And when Polidoro writes of a paranormal hoax exposed by Houdini, "It was a typical swindle, still used today by many selfclaimed psychics, astrologers, and charlatans. By this means Reese had been able to gather sums of money from gullible people who, more often than not, were also learned men of science and culture," the response is again, "So what else is new?"

I was surprised to learn that, while Conan Doyle was en route to Australia, some Australian Presbyterians held a prayer meeting to ask their sectarian god to prevent the proponent of an opposition religion (Spiritualism) from reaching their shores alive. A fringe cult in Vancouver in 1962 held a similar prayer meeting to petition that a stage hypnotist not be permitted to perform in their city. The god did not answer that request either.

Polidoro does not devote much space to Doyle's authentication of the Cottingley fairies, other than to quote a couple of statements in which Doyle expressed his conviction that little girls do not lie. That little girls (and boys) are humankind's most notorious liars was quite unknown to him.

On the question of whether Arthur Ford correctly identified the message Houdini had promised to communicate to his widow if he ever came back, Polidoro quotes enough statements from Bess Houdini to make clear that only her desperate desire to believe led her to an initial authentication of Ford's claim. On sober reflection, she realized that Ford had simply picked up prepublished clues and capitalized on her willingness to believe that the message was what Houdini would have sent her if he had been able. It was not a message that he had pre-arranged to send her. Doyle, not surprisingly, was convinced that Ford had indeed communicated with Houdini, and no one could convince him otherwise.

Even after Houdini's death, in a letter to Bess Houdini, Doyle reiterated his stubborn conviction that Houdini possessed the very powers he devoted his life to refuting, including an ability to dematerialize his body in order to pass through solid walls (225). In doing so, he foreshadowed the parapsychologists at George Washington University, St. Louis, who, after James Randi's "Project Alpha" had exposed their gullibility by having them pronounce the illusions of two youthful conjurers as genuine psychic phenomena, actually asserted that Randi's associates really were psychics who for some reason were now pretending to be magicians. Will believers in pseudoscience ever learn to distinguish between sense and nonsense, and face the reality that their superstitions have been as fully disproven as phlogiston and the planet Vulcan? Only if Barnum was wrong.



Using Science Fiction to Promote Creationism

BARRY F. SEIDMAN

Calculating God. By Robert J. Sawyer. Tor Books/Forge, 2001. ISBN 0812580354. 352 pp. Softcover, \$6.99.

obert Sawyer, some say, is Canada's answer to Michael Crichton. I would agree. Like Crichton, Sawyer tells a fascinating story in a fun-filled manner. Also, like Crichton,

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Sawyer confuses science with fantasy.

There is one major difference between both writers: Crichton plays with dinosaur DNA and super-mysterious Spheres, never trying to claim this fiction is hard-science fiction. He is the perfect science-fantasy writer, balancing his art somewhere between George Lucas and Greg Bear.

Sawyer, however, has written many hard-science fiction books, many quite fun to read, like his Quintalaglio Trilogy, Starplex, and Illegal Alien. He has cited the great scientists of the past two centuries from Galileo to Sagan, Darwin to Gould. But with his book The Terminal Experiment—where he claims scientists find proof for the soul-Sawyer began to use his fiction more as a weapon of anti-science propaganda rather than entertainment.

This is most certainly true of his lat-

of physics and chemistry, it would not be able to sustain life; therefore, that this universe happened to indeed have life (at least on Earth as readers must remember, we have not found Forhilors or Wreeds quite yet), means that this universe is one amazing lucky chance for us all!

But chance is not what Sawyer has in mind. As much as he tries to prove this, however, by stating coincidence after coincidence, he cannot scientifically rule out either the multi-universe idea, or

"believe in" evolution's idea of speciation if we have never seen a fish turn into a human. Or, how could we "believe" in the Big Bang if we cannot know what occurred at the origin of the universe "absolutely." Of course, by this Sawyer commits the fallacy that scientific theory is just the same as everyday theorizing. We have shown how speciation occurs and that the Big Bang has occurred; we do not need an expanded lifespan to know these scientific theories are true.

In his novel, as in past works, Sawyer talks about two great scientific minds: Carl Sagan and Steven Jay Gould. But he chooses, with Gould, to focus on his book, Rock of Ages, which promotes the idea of "non-overlapping magisteria" of science and religion. With Sagan, he considers Sagan's one and only novel, Contact, as being pro-God. It is amusing this reference appears in Calculating God. About three years ago, this writer had an e-mail dialogue with Sawyer on his pseudoscience award-winner Terminal Experiment. In that conversation he brought up Contact and said to me just what he later wrote into Calculating God. "It [Contact] said that the universe had been designed, created to order by a vast sentience . . . [Sagan] ... allowed the possibility of a creator." He then went on to say, as he did in the conversation with me, that Sagan did not have to believe what he wrote in the novel any more than George Lucas had to believe in the Force from Star Wars. But clearly, Sawyer wants to discredit these two atheist scientists by addressing that somewhere beneath their hard exterior lives(ed) a man of faith after all.

In the end, the God of Calculating God is some sort of superior entity who plays with universes to create offspring in its own image. Sound familiar? Of course, if such a creature existed, as startling as it might be, it would certainly be a challenge for science and not religion. It is time for Sawyer to reconsider himself a fantasy writer, or a science-fantasy writer at most, and stay far, far away from hard science fiction.

Sawyer began to use his fiction more as a weapon of anti-science propaganda rather than entertainment.

est book-recently published in massmarket form-Calculating God. In this book, Earth is visited by two different alien species, the Forhilors and the Wreeds. Both species have come to the conclusion that science has proven the existence of God, and Sawyer's human scientists must deal with the fact that these aliens are not Jerry Falwell, but advanced intelligent life far ahead of humans in technology. Alas, it is perfect way for Sawyer to claim that creationism and God-belief is the intelligent response to our universe.

From the line on page 18 stating, "That we live in a created universe is apparent to anyone with sufficient intelligence and information," to Sawyer's conclusion that the aliens' God really does exist, creationism is par for the course in Calculating God.

The premise backing the alien's creationism? The Anthropic Principle, which states that the universe "seems" to be such that with the slightest change

any other scientific explanation which would show chance is the key factor indeed. The only way Sawyer does back up his pseudoscientific ideas in his novel is via his alien creations.

Sawyer proposes a universe where all life seems to be so similar that evolution on all planets followed the same cycles. producing only minor differences in form. He even concocts the absurd idea that the two alien worlds and Earth went through the exact same kind of mass extinctions, at the exact same time; and, of course, this was caused by God toward His ultimate goal for life in the universe.

Sawyer also includes more traditional creationist ideas like how cilia or the human eye could not have formed one step at a time and still be functional at each step. He chooses to ignore Richard Dawkins's work in this, which clearly explains that irreducible complexity is just a bad idea. Sawyer's aliens ask of humans how we could