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Rescuing Science from Scientism: the Achievement of Walker Percy

Walker Percy regarded science as an elegant undertaking. It clearly appealed to him both on a rational and an aesthetic level. Yet he was the most persuasive opponent of scientism in the latter half of the twentieth century. Percy's way of responding to scientism was not the common one often employed now—roughly postmodernist denial of any role for truth or objectivity. Such postmodernism is scarcely more than a thinly disguised relativism at best, or nihilism at worst. The failure of postmodernism in effect yields the field to scientism, which—even though it is a broken hypothesis—continues to be a problem in our age. We may be rewarded by sorting through these matters to seek a deeper grasp of Percy's insights.

“What is scientism?” It is a two-part hypothesis about (1) the nature of science as it is practiced, and (2) the relation of science to other areas of human activity (namely, the proposal that science is the only human activity that yields knowledge or truth or reality).

It is easy to go too fast at this point. We must slow down to avoid skipping over an important element.

Science as it is practiced may be com-

pared to the activities of pocket billiard players. For instance, an expert at pool possesses a set of skills and a particular insight into the flow of play and of abilities of opposing players. Hypotheses about the nature of pool, or about the relation of pool to other human activities, are quite separate from one's skill as a pool player. One can easily encounter pool sharks who say, “I have no idea about the nature of what happens on a pool table, nor about the relation of the game to other things people do—I just like to play the game and I am very good at it.” The theory of pool play is quite another thing from actual playing. And because such theories are hypotheses, they will have to be tested alongside competing hypotheses.

Without a separation between the hypothesis and that which it is proposed to explain, we are too ready to think that the first appealing hypothesis that arrives is a fact. What would make a hypothesis so appealing that its mere statement would

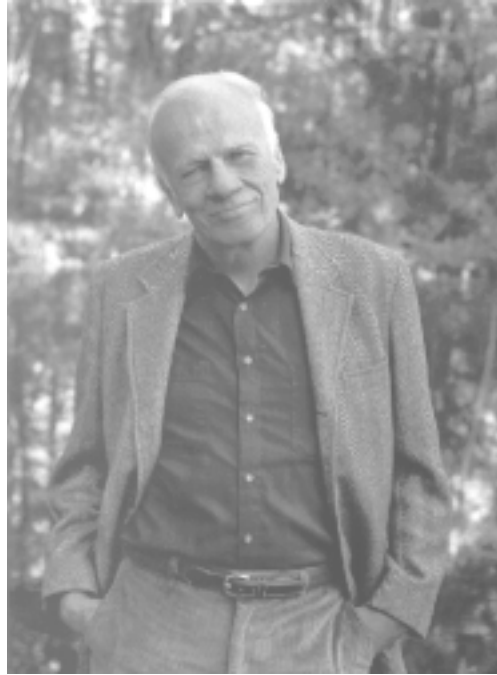
Kenneth Laine Ketner, *head of the Institute for Studies in Pragmaticism at Texas Tech University*, co-authored *A Thief of Peirce: The Letters of Kenneth Laine Ketner and Walker Percy*. *His latest book is His Glassy Essence: The Autobiography of Charles Sanders Peirce*.

encourage us to accept it as fact without any testing? In the case of pool, if Minnesota Fats, the famous player, uttered a hypothesis about the game, that might lead some to take it as a fact. But unless an expert player were capable in trigonometry, physical dynamics, and social psychology, and had actually objectively tested the hypothesis, we would be right to regard that hypothesis with less credence than we regard that expert's actual pool playing.

If pool is not your game, consider religion. If a person were a brilliant public speaker, that in itself should not mean that a religion so expressed were better than one expressed by a minister who stutters. A similar situation exists in the case of a scientist: one's status as an expert practitioner does not make one's hypotheses about the nature and significance of science automatically acceptable—they must be successfully tested in competition with other hypotheses before earning the status of fact. Nothing about the personal circumstances of a hypothesis proposer (fame, status, good looks) can be allowed, within the objective method, as evidence for or against a hypothesis.

It will be helpful to adopt some terminological conventions to maintain clarity, because there is a tendency to equate scientism with science. Science with no additional modifiers (or the phrase Science as

it is practiced) will refer to the actual practices, free of any hypotheses about their nature or significance to humanity. Scientism is one of several possible hypotheses about the nature of science. I shall sketch an alternative to scientism that I label as the Objective Method.



Walker Percy

Hypotheses are tested by examining their consequences. What are the consequences of scientism? One of its most amazing consequences is that everything outside of science (as construed by the second aspect of the hypothesis of scientism) becomes a mystery. Religion—since it cannot, on this doctrine, engage in the scientific method (as pictured within scientism)—produces no knowledge or truth. Art, because it cannot

possibly employ the kind of scientific method sanctioned by scientism, yields no truth, no insight into reality—art is merely entertaining and within education it is a mere frill. Moral discipline, because it is not a science (on the lights of scientism), presents only expressions of individual preference in place of objectively confirmable conclusions. Positively, scientism offers its version of chemistry, physics, biology, and experimental psychology—and, of course, their engineering counterparts (manufacturing, computing, medicine, counseling) which provide applications that benefit our lives, bringing us comfort, security, and control. This is an

intolerable situation for an explanatory hypothesis; it is analogous to explaining human life only in terms of cogitation while declaring that breathing, sleeping, or dancing were condemned to be mysteries.

In the matter of scientism as a hypothesis about the nature of science, it is at bottom a claim that all items studied in science are either material things or causal connections between such entities, and that the goals of science should be to employ knowledge gained by such studies to control material things or causal connections. This understanding of science clearly does require rejection of religion, art, and moral study as activities lacking in knowledge or truth, since—from the perspective of scientism—those three areas do not deal with material things or causal connections. Scientism boiled down to its basics comes out as the truth claim that there are no nonmaterial realities.

Wrong.

There are nonmaterial realities.

Science as typically pursued today in the finest and most rigorous laboratories necessarily requires nonmaterial realities.

It is wise to take a short break, because a typical automatic objection occurs at this point, a response to the effect that I must be about to advocate some version of supernaturalism. No, I am not. Supernature, in the sense it is usually employed as an explanatory option, is quite dead. As a method for explaining, supernaturalism states that one may understand puzzling events in our world by correlating them to events in another world. And the explainer gets to make up a story that provides the appropriate features and events in that other world. One then states that an event happened in the supernatural world that caused the puzzling event in this world. The problem with such a strategy is that since it “explains” any puzzling event one could select, it explains nothing. One can notice another curious

thing about this sense of supernaturalism. It is fundamentally a clone of the logical pattern of materialism, which is transferred to a second world where, instead of matter, one has ghostly matter; it preserves the principles and procedures of materialism within that second world but without ordinary matter. Typically such supernaturalists are at bottom convinced materialists, but since they cannot locate a material explanation in this world, they make up a second yet equally materially functional world, then say that those second world entities cause puzzling events in our world. This comes down to an egocentric method by detour through another arbitrary world. There is another, legitimate, sense of supernatural. But it can be more fruitfully considered after some additional preliminary work.

As Percy clearly noticed, speaking as a hard-nosed scientist, there are nonmaterial realities. This came in a famous essay of his, “The Delta Factor,” within the title of its last section (Percy liked verbose titles):

A NONLINEAR NONENERGIC NATURAL PHENOMENON

(That is to say, a natural phenomenon in which energy exchanges account for some but not all of what happens.)

Surely we are licensed to add, “There are Nonlinear ...” in front of the title. Actually, such realities are quite common. Perhaps it is their extreme familiarity, their “everydayness,” that tends to hide them from our theoretical notice. Or perhaps if one is so bent upon searching only for material things and their causal connections, one walks right by obvious instances of important nonmaterial realities, concealed quite adequately by a tunnel vision in the eyes of a materialist researcher. As Percy mentioned, it is as if there were an embarrassing problem with a blacksheep family member,

Uncle Louie, which we don't discuss, nor usually notice in our overt family life.

Nonmaterial realities are ubiquitous in the practice of science. Scientists typically do not notice them because such realities comprise the background of their practice. Also, many practicing scientists are adherents of scientism. Sometimes this is because they have never heard that there are alternatives, in the manner of a person who was born a Baptist in a community where there were only Baptists and who consequently, through lack of contrasts, tacitly equated the Baptist movement with religion in the general sense. In any case, because of their scientism and its biases toward accepting only matter and causes as realities, they often fail overtly to notice aspects of scientific practice that stand outside of matter or causation.

An obliging objector might at this point ask for a defense of this claim about the real and necessary presence of nonmaterial entities in laboratory science. I gave an example of this to Percy in one of my letters to him, after complaining about a foolish and fallacious arbitrary attempt to ban such realities within physiological psychology. The entire discussion might be useful, but here is a brief outline. Imagine a famous physiological psychology laboratory with this placard at the entrance: NO NONMATERIAL ENTITIES ALLOWED BEYOND THIS POINT. Inside the glass front of the facility, too far away to discern their words, we see scientists in white lab coats animated in speaking and writing about their work. We notice that communication or the dialogue of scientific inquiry, both within this lab and with the outside world, is a necessary component of scientific activity in the lab. These items are clear examples of nonmaterial realities. For the moment we will overlook other obvious events within the lab, such as professional jealousy or fear of

failure.

Roughly at this point Percy turned to his predecessor in this approach, the American physical scientist, mathematician, and logician, Charles Sanders Peirce (1839-1914). Percy's last major statement, the 1989 Jefferson Lecture for the National Endowment for the Humanities, was devoted to showing how Peirce's insights had been important for his own work, and for future researchers, and for gaining a proper understanding of the demise of scientism.

Expressed in the briefest form, Peirce was a relational realist. Relations are real. Moreover, according to Peirce and Percy, the genuine practice of science presumes the reality of relations.

It is important to grasp Peirce's characterization of the concept *real*. Something is real if it has properties or attributes independently of some one person's egocentric wish, hope, desire, or command as to what those properties should be. On this approach, all existing things, such as rocks and automobiles, are real. But this method also recognizes—contrary to materialism—that there are some nonexistent items that also are real. Among those are everyday relational phenomena such as communication or dialogue. According to Peirce and Percy, it is the materialist opponents of relational realism who are not hardnosed enough, who are unable or unwilling to acknowledge a reality right before their face.

Consider an example. Suppose Leonardo da Vinci zealously desired his flapping wing Man-flyer to succeed as he strapped it to his body and jumped off a hill. The Man-flyer, however, really possessed the property "...too heavy to fly," independently of Leo's egocentric wish (or of any number of other egocentric wishes with identical content). Despite its test pilot's fervent wish to the contrary, the Man-flyer crashed.

Everyday life is filled to overflowing with

relations that are nonexistent *reals*. The following sentences describe some common examples: Suzy is a Texan. John loves Suzy. Bob sent a message to Victor. George bought a Buick from Sondren Motors for \$23,763. The food is in my mouth.

According to Peirce, a relation is a fact about a number of things. The first sentence above describes a fact about one thing (a property of one thing), a type Peirce labeled as monadic relation. The second sentence describes a fact about two things—a dyadic relation. The third sentence describes a fact about three things—a triadic relation.

Some triadic relations are also what Peirce called Sign Relations. Sign Relations constitute perhaps the most important relational type. A sign is the complete relation involving an object (in the sense of an object of discourse—the item we are talking about), a representation of that object, and some interpretation of the representation of the object. Peirce proposed specific terminology for sign relations: the Object is the topic being considered, the Representamen is some representation of that object, and the Interpretant is an interpretation of the Representamen. For example, if you say “Hello” to me, your hello is a Representamen of your intention (the Object) to greet me, which hello I interpret as your greeting (my interpreting it as such is the Interpretant in this case). Communication occurs through the give and take of a large number of sign relations.

Without communication, scientific inquiry would be impossible; *The Practice of Science Requires Communication Among Scientists*. Indeed, for any hypothesis about the nature of science to be complete, a viable account of the nature of scientific communication is required. Scientism, with its resources of materialism and causation, cannot provide that desideratum. On its account, communication could only be

robotic. But it is clear from our daily experience that communication is not robotic, hence scientism lacks a necessary requirement for a complete hypothesis about the nature of science.

Is the claim that communication is nonrobotic nothing but a mere opinion? As we have seen, Peirce’s sign theory holds that sign relations—the stuff of communication—are triadic relations; since it can be demonstrated to a high level of mathematical rigor that triadic relations are not reducible to dyadic relations, we have a demonstration that no causal (dyadic, robotic) account of communication is feasible. These resources from Peirce’s approach attracted Percy’s eye and became tools within his fiction and nonfiction. Percy’s novels are full of ironically humorous or deadly serious examples of the reality of relations, relationships, communicational relations, and sign relational processes. My personal favorites are found in *Love in the Ruins* (the “Pit” debate, or the description of a typical research day at the Love Clinic), *The Second Coming* (Allie’s rebuilding of her life through rebuilding her language), and *The Thanatos Syndrome* (the final comical shootout full of complex relations).

For those interested in pursuing these issues within Peirce’s works, I prepared a volume that introduces them. I came to that task through Percy, who, in the last years of his life, urged me to undertake an account of Peirce’s life and accomplishments using fictional or novelesque methods. This resulted in the publication of *His Glassy Essence: An Autobiography of Charles Sanders Peirce* (Nashville: Vanderbilt University Press, 1998). Ultimately each of us is a biographer of our own life. My aim was to show that each of us also routinely prepares biographies of other persons. On this approach, your biography of Charley Peirce will likely be different than mine, even if we

had read the same resources. And your biography of Peirce will be in some sense an autobiography, because you [auto] necessarily must prepare it according to your interpretation of the resources. No evidence is self-interpreting. This is but another consequence of Peirce's Sign Theory (which he labeled as Semeiotic, pronounced See-my-OH-tick; this is not semiotics, which is something quite different from Peirce's approach). The consequence is that we are condemned to interpret, to borrow a slogan from Sartre (who claimed that we are condemned to be free). And interpretation is but the sign relation viewed from the aspect of the receiver of a message. Interpretation is a sure sign of the presence of triadic sign relations that transcend dyadic or causal relations.

This brings me back to the earlier discussion of supernatural. While the sense of this word I discussed is without merit, it would be possible to construct another sense of the word based upon the findings of relational realism and sign theory as exhibited in the work of Peirce and Percy. But let us leave that task for another day.

Where does the argument stand? Taking science as it is practiced as the item in need of explanation, we disconfirmed scientism as a viable hypothesis about the nature of the former. It fails because it only produces another mystery (it fails to explain activities such as religion or art), and it makes an essential element of scientific practice (communication between scientific inquirers) incomprehensible. In its place we put the hypothesis of Objective Method that contains elements by Percy and Peirce: an analysis of the methods of science, a description of the essential role of triadic sign relations in scientific communication, and a reopen-

ing of inquiry into the objective features of art, religion, and morality (on top of continuation of researches in current areas of scientific inquiry in the physical and social sciences).

Or we could express it this way. If we destroy the purported equivalency of science with scientism, we find that science is broader and more inclusive than our scientific colleagues have allowed. Science understood as objective method can inquire into any area of human interest in which realities might be present—whether as existents or reals—waiting for an open mind to discover them.

References

- Ketner, Kenneth Laine**, editor. *Reasoning and the Logic of Things: The 1898 Cambridge Conferences Lectures by C.S. Peirce*, Cambridge: Harvard University Press, 1992. **Ketner, Kenneth Laine**. "Novel Science, or, How contemporary social science is not well and why literature and semeiotic provide a cure," in Samway (ed.), *A Thief of Peirce*, pages 256-284. **Ochs, Peter**. Peirce, *Pragmatism and the Logic of Scripture*. Cambridge: Cambridge University Press, 1998. **Peirce, Charles Sanders**. "Illustrations of the Logic of Science," in *Chance, Love, and Logic: Philosophical Essays*, Lincoln: University of Nebraska Press, 1998. **Pepper, Stephen C.** *Concept and Quality: A World Hypothesis*, LaSalle: Open Court, 1967. **Percy, Walker**. *The Message in the Bottle*. New York: Farrar, Straus and Giroux, 1975. _____. "The Divided Creature," *The Wilson Quarterly*, volume 13 (1989): 77-87. _____. *Lost in the Cosmos: The last Self-Help Book*. New York: Washington Square Press, 1983. _____. *Signposts in a Strange Land*, ed. Patrick Samway S.J., New York: Farrar, Straus and Giroux, 1991. **Samway, Patrick, S.J.** editor. *A Thief of Peirce: The Letters of Kenneth Laine Ketner and Walker Percy*. Jackson: University Press of Mississippi, 1992, pages 90-98. _____. "Walker Percy: Gift-Giver," *The Delta Factor*, volume 6 (1999), pages 1-2. **Scott, Frances Williams**. *C.S. Peirce's System of Science and an Application to the Visual Arts*, Lubbock: Dissertation, Texas Tech University 1985. **Westney, William**. "Why Piano Lessons Matter," *Clavier* (April 1993).