

Here follow excerpts of two letters to me from officials in the British Library Bibliographical Information Service about the library's holdings of the tract *To the Praise*:

February 12, 1992

I have consulted both copies of *To the praise of Mrs. Cellier the Popish midwife; on her incomparable book*. London: Printed for Walter Davis in Amen-Corner, 1680 (British Library shelfmarks: C.20.f. 2 (133) and Lutt.III. 130) Both are dated: MDCLXXX. The item at Lutt, III. 130 also has 14. Sept. 1680 in manuscript above the main body of the text.

July 9, 1992

I regret that it has still not been possible to trace the volume of broadsides allegedly containing *To the Praise of Mrs Cellier*, dated 1641, to which G.W. Bredbeck refers. My colleague in the Library's Antiquarian English section informs me that there is no record of a further acquisition of the pamphlet; it seems therefore most unlikely that Mr Bredbeck would have been given an uncatalogued copy of it.

In conclusion, there was no "Mrs. Cellier" who could have been mentioned in a work printed in 1641, and there is no connection with Milton at all. Furthermore, any allegations or accusations made in a work printed in 1680, Catholic or Protestant, in the frenetic atmosphere of the Titus Oates Plot and the Exclusion Crisis, are suspect.

ARTHUR H. SCOUTEN  
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#### Reply:

Believing as I do that Arthur H. Scouten's several letters about the *one* sentence in question are motivated by his history at the University of Pennsylvania, my alma mater, and being unwilling as I am to participate in histories that are not my own, I simply note here that Scouten reiterates a point I acknowledge in my previous Forum response: the Cellier incident is, in actuality, of no interest to me. Indeed, the longer and more recent version of the essay, which appears in my book *Sodomy and Interpretation: Marlowe to Milton* (available from Cornell University Press at a very affordable price), entirely omits the *single* erroneous sentence.

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## Science and Metaphor

To the Editor:

As a rhetorician of science and a former scientist, I welcome Liliane Papin's thoughtful discussion of the metaphoric nature of science ("This Is Not a Universe: Metaphor, Language, and Representation," 107 [1992]: 1253–65). Especially important is her consideration of the plurality exemplified by Bohm and Peat's vision in which scientific metaphor appears at the pulse of the simultaneity of the *is* and the *is not*, what Ricoeur calls the "primordial dialectic." Papin's interweaving of quantum theory, literary criticism, Zen koans, and the *I ching* is particularly relevant in that each approach moves toward an integral view. But, as Papin points out in alluding to Whorf's work, Indo-European languages obscure an integral view of nature since they separate noun from verb, subject from event, self from action. In the multiple universe Papin describes, we are inseparable from our thoughts, words, and actions. And, yes, words are traps because no one can capture the dynamic unity of nature in any one metaphor, phrase, or theory. All we can do is evoke the sense of change, the trace of awakening that led to insight.

"This is not a universe," Papin quotes from Bohm and Peat, who warn that once we name an object, we necessarily fragment our understanding of it. However limited our understanding may be, our words are still very powerful. Science may be akin to metaphor, but scientific theory is translated through technology into action. A vaccine, a bridge, an automobile—all these events change nature just as surely as do recycling aluminum cans, slashing and burning the rain forest, and reintroducing a red wolf into a wildlife preserve. Burying a missile in the earth affects nature, and so does planting a wheat field. Science is therefore operative metaphor. Words may be an important means to express a view of nature, but they do not exist alone, separate from the things they seek to describe. Rather, as Bohm suggests, nature responds according to the way we perceive, describe, experiment. If tested as a particle, light is a particle. If tested as a wave, light is a wave. But untested, is light particle or wave or nothing? How do we know? Is there a way to perceive this magnificent nothing?

Perhaps at the threshold of metaphor there is a clue to what lies beyond the poles of contrast, for a metaphor embodies the similarity in two things apparently dissimilar. Aristotle calls metaphor an "intuitive perception," and, in the *Posterior Analytics*, he says that intuition is more accurate than scientific knowl-

edge (100b). Can we explain an intuition in words? Not usually. Metaphor merely evokes the insight. And, as important as words are in shaping our thoughts and actions, words are not all we have. In science, there are photographs, diagrams, and handshakes, visual and nonverbal communication. But beyond that, there is silence. Barbara McClintock knew how to cultivate silence, and she developed a meditative awareness from which her scientific understanding arose. McClintock's was a relaxed and focused clarity, a penetrating insight into nature. The adepts who study the *I ching* know something of this silence. They have an understanding of the *I ching* more subtle than that which is conveyed by language, even though many of them know Chinese and the nuances of the ideograms. To know the *I ching* is to experience the changing of the seasons, the shift of energy in the day. Once this experience is internalized, there is no longer any need for the symbol represented by the hexagram. The martial art of *bagua* helps the cultivation of this silent understanding, for the movements of *bagua* are based on the hexagrams of the *I ching*. When the movements are internalized, so too is a subtle understanding of the *I ching*.

Papin speaks of moving toward holism, toward unity. Then she says that we only have words and that, since our words are Indo-European, they are extremely limited, bound to fragment. Only if we let them. This is not a universe. This is a universe. This is and is not a universe. The words become a mantra moving toward an experience of unity—and this experience is often wordless. In t'ai chi ch'uan, the practice of "push hands" allows two people to become a *métaphore vive*. Each partner touches the other, and the two move in a circle. Two separate selves recognize their interconnection. The art of push hands is to merge completely, so that when one partner moves, the other anticipates the movement. Push hands can be practiced as a martial art, as an exercise for health, and as a metaphor for the expansion and contraction of the universe.

How can we move this way in argument, an engagement in which we believe that strength is in the assertion of a separate view, not in the movement toward an integral view? Burke, Schilb, Jarratt, and others have warned that we must not discard one viewpoint for another, that we must take care not to confuse unity with consensus. We might learn again from push hands, where both partners are integral to the movement. Each partner is intact as an individual but, at the same time, inseparable from the other. Is there a similar way to integrate multiple perspectives? Can we together choreograph a dynamic dance of

diversity, where each perspective is a distinct and interdependent step toward a deeper awareness? There is much to explore here: the trace of insight that we find in metaphor, the merging of viewpoints that we find in the synthesis of dialectic. And beyond the words, we have silence.

MARIANTHE KARANIKAS  
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To the Editor:

Although I was pleased to see in *PMLA* an essay on science and literature, Liliane Papin's "This Is Not a Universe: Metaphor, Language, and Representation" is disappointing because the author simply reproduces the familiar claims and limitations of a large vein of work in the area. Beginning with the usual condemnation of that undefined nemesis "positivist science," Papin goes on to amplify the antirealist notion that scientific language is metaphoric and is unable to convey knowledge of a mind-independent natural reality. This constructivist "finding" is said to have the happy result of closing the gap between the natural sciences and literature: Papin concludes with the idea that "we are all poets and the world is our metaphor" (1264).

Rhetorical demystifications of science's prestigious results may seem reassuring to some literary critics, but that does not make such arguments an effective or credible interdisciplinary strategy. Papin's theoretical canon is highly exclusionary, for she fails to mention any of the important recent work in epistemology and in the history and philosophy of science that does not echo her notions. I have in mind, for example, the carefully argued positions of such prominent figures as Ruth Garrett Millikan, Richard Boyd, Frederick Suppe, Susan Haack, Richard W. Miller, and W. H. Newton-Smith. Papin's article is a fine instance of what Fred Crews has recently called "duty-free interdisciplinarity," the tendency among literary critics to ignore the standards and results of the fields from which they borrow. This facile interdisciplinary strategy is especially unacceptable when it is a matter of reducing the complexities of extraordinary—and at times terrifying—discoveries in the natural sciences to a single error about the metaphoric nature of scientific (and all) language.

The shortcoming I have in mind is especially salient in Papin's remarks on AIDS-related research. Citing only one source on the topic—an article in *Le point*—Papin contends that AIDS research suffers from a