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## CITATION FOR BRUNO LATOUR, 1992 BERNAL PRIZE RECIPIENT

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The Bernal Prize of the Society for Social Studies of Science, established by Eugene Garfield of the Institute of Scientific Information in 1981, is awarded annually to a candidate selected by the Bernal Prize Committee. This year's committee, Harry Collins, Tom Hughes, Arie Rip, Steven Shapin and Harriet Zuckerman, has awarded the Bernal Prize for 1992 to Bruno Latour.

Bruno Latour is full professor at the Centre Sociologie de l'Innovation of the École Nationale Supérieure des Mines de Paris and permanent part-time visiting professor in the Science Studies Program at the University of California, San Diego. From the beginning of Bruno Latour's work in science and technology studies, he has emphasized the importance of texts and inscriptions. In 1976, in his very first public performance in the world of science and technology studies, he emphasized that sociologists should equate scientific knowledge with scientific literature, in a broad sense, if only for the heuristic value in avoiding philosophical traps.<sup>1</sup> So it is only fitting that, in this appreciation of Bruno Latour's contribution, I start with this published work.

Apart from scholarly articles, edited books and translations, Bruno Latour has five books to his name, and more are to come. His first book *Laboratory Life*, based on a two-year ethnographical study of the Salk Institute in California, and coauthored with Steve Woolgar, remains a landmark achievement and has become a modern classic. The continuity as well as development of Bruno's views (as well as those of others working in this field, I add), is visible in the subtitles of the two editions. In the 1979 edition, it was *The Social Construction of Scientific Facts*. The second edition of 1986, with a new afterword, featured *The Construction of Scientific Facts*. The emphatic qualifier *social* had served its purpose and was now counterproductive.<sup>2</sup>

In 1987, *Science in Action* was published. It was written for the Open University Press, and by now has been translated into three other languages, including French.<sup>3</sup> With this book, Bruno Latour achieved broad visibility and a wide impact in social studies of science and technology on both sides of the Atlantic, as well as in other disciplines, and it is important to note, also with scientists and intellectuals in general.

But one should not forget the book in between, on the Pasteurization of France, based on work done while Bruno Latour was connected with the Conservatoire National des Arts et Métiers in Paris.<sup>4</sup> This research monograph, creating a novel perspective on how Pasteur was able to add “microbes” to the composition of the world, expands the argument in *Laboratory Life* from the lab into the wider world. There is a second part to the monograph, *Irréductions*, which reads as a set of philosophical propositions. To show you the flavor, I will give the gist of the opening ones:

Nothing is, in itself, reducible or irreducible to anything else.  
 There are only trials, trials of strengths and weaknesses.  
 Real is what offers resistance in the trial.<sup>5</sup>

If you remember how Bruno, in 1976, emphasized that philosophical traps should be avoided, he now clearly, after “following the actors,” was able to return to philosophy, and—one hopes—spring those philosophical traps for the unwary. *Irréductions* contains some of the basic insights that guide his work.

The Bernal Prize Committee considered the breadth and scope of Bruno Latour’s work, its depth and its impact, and concluded that his nomination for the Award would be a worthy addition to the list of distinguished recipients. The Society is honored by Bruno Latour’s acceptance of the Award. It is a pity that he was unable to receive the Award in person; after some trials, the financial and familial costs turned out to be too great.

The breadth and scope of Bruno Latour’s achievements will be apparent when one looks at his work:

- his degrees in philosophy, with highest honors
- a field study of business enterprises in Africa (Ivory Coast)
- another field study, now of a biochemical research institute in California
- a continuing—and critical—interest in anthropology of science
- then, in line with the focus on texts, but also inspired by Greimas and Serres, the development of a semiotic approach to the understanding of society: the so-called actor-network theory, developed in collaboration with Michel Callon and others
- studies of visualization and of images and religious paintings, as well as involvement in the actual production of visuals and exhibitions
- less visible, perhaps, but no less interesting, his work in science policy studies and in qualitative scientometrics
- more recently, his strong interest in technology that has led to contributions to the new sociology of technology and to an explicitly voiced concern with artifacts and with nonhuman entities in general, whether these are door closers, seat belts, or metro vehicles

In the introduction to his recent book, *Aramis, ou l’amour des techniques*, which translates into something like “Aramis, or about the love of technical

artifacts,” Bruno writes that he wants to show to researchers in the social sciences and humanities that sociology is not the science of humans alone, but that it can receive with open arms the masses of nonhumans, as the sociology of the 19th century did with the masses of poor people. Our collective fabric is woven, perhaps, of speaking subjects, but attached to it in every point are the poor things, our brothers and sisters lower down. And by opening up our sociology to them, what holds society together will become less mysterious.<sup>6</sup>

From this brief exposé, it will also be clear that breadth has been combined with depth, often in novel and productive ways. What Bruno Latour has set out to achieve does not resemble customary sociological explanation. In fact, he emphasizes that sociologists should be modest and consider actors—and in particular scientists and engineers who are the forceful actors of our present time—to be the *real* sociologists: They are the ones actually knowledgeable and skillful enough to change the composition of the world.

The coherent perspective that he has articulated and applied emphasizes linkages, or *associations*, between actants (a semiotic concept that is the general term for active entities in texts and in the world, whether of human or nonhuman persuasion).<sup>7</sup> In Bruno’s words, this is not a sociology, but an *associology*. To bring about associations: That is what counts. The implied Machiavellianism is out there in the workings of the world, and Bruno Latour, like a modern Machiavelli, wants to uncover it for all to see.<sup>8</sup> This perspective of *associology* has proved fruitful in offering new understandings of science, of technology, and of society in general—even if it might also foreclose understanding in other directions by its emphasis on the contingency of outcomes. In adding such explicit evaluations to a summary of Bruno Latour’s achievements, I am adding my own voice to his, and I will continue to do so to round off this appreciation.

Looking back, one sees that parts of the perspective were presented already at the very first meeting of our Society in 1976, at Cornell University, Ithaca, New York, in a paper with the seemingly innocuous title “Including Citations Counting in the System of Action of Scientific Papers.”<sup>9</sup> And it is indicative of Bruno’s style, as well as of the evolution that our field has gone through since, that many of those present then had difficulty in grasping what it was all about. Picture a young man, recognizably French because of accent, rhythm, and speed of talk, as well as for his un-English eloquence, who was presenting slides (as natural scientists do) of the interior of a lab and of diagrams purporting to show how scientific texts operate on other scientific texts. Citations are then only one of the many moves in the strategic game of fact construction: “The good paper does not inform, it transforms the system of assertion of the former literature” through its actions in linking up

entities.<sup>10</sup> I remember that I could not make up my mind whether this was serious (and perhaps important) or ironic commentary, or perhaps just comic relief.

Since then, I and many others have made up their minds. It was serious and important, and not only for science and technology studies. The striking images and examples, and the new concepts forged, have come to stay. The unintended and sometimes intentionally polemical style derives from a very strong intellectual engagement, rather than a wish to exert force per se. So for that reason alone, Bruno will be involved in controversies. But always, these controversies are about issues that are important in one or more of our disciplines, or will become so, and will often have concrete implications. The Bernal Prize Committee considered that it is not necessary that an Award winner's views be widely applauded. It is the contribution to progress and renewal in science and technology studies that counts, and about Bruno Latour's impact in this respect there can be no controversy.

When studying Pasteur and the Pasteurization of France, Bruno Latour wrote an article with the title, "Give Me a Laboratory and I Will Move the World." Has he been able to move the world of science and technology studies without a laboratory? No, he has had his own allies and, in particular, the almost-laboratory of the Centre Sociologie de l'Innovation in Paris and his colleagues there. It was therefore appropriate in a sense that the Award was received at the annual meeting by one of his younger colleagues from the Centre, Vololona Rahebisoha. She was delegated to be his mouthpiece—and those present were able to judge whether the association held up.

—Arie Rip

## Notes

1. The reference is to Latour (1976). Latour notes: "We define as literature not only the published papers but a *continuum* which includes: drafts, corrected manuscripts, preprints (confidential or not), oral presentation of written papers, 'poster sessions,' abstracts, and, finally, printed papers, reprints and xeroxes. Each of this type of literature has its channel and its social organization. It will be absurd to limit science to published papers, but more absurd to overlook the omnipresence of the different stages of writing in the making of science" (p. 3).

2. Latour and Woolgar, (1979, 1986).

3. Latour (1987). This work has been translated into Dutch (1988), French (1989), and Spanish (1992).

4. Latour (1984).

5. The original French text reads as follows:

1.1.1. Aucune chose n'est par elle-même réductible ou irréductible à aucune autre.

1.1.2. (Il n'y a que) des épreuves (de forces ou de faiblesses). Ou plus simplement encore: des épreuves. Tel est le point de départ, un verbe, éprouver. (. . .)

## 1.1.5. Est réel ce qui résiste dans l'épreuve.

6. Latour (1992) states: "j'ai voulu montré que la sociologie n'est pas cette science des seuls humains, mais qu'elle peut accueillir à bras ouverts les foules de non-humains comme elle le fit au siècle passé pour les masses des pauvres gens. Notre collectif est tissé de sujets parlants, peut-être, mais auxquels s'attachent en tous points les pauvres choses, nos frères inférieurs. En s'ouvrant à eux, le lien social de-viendrait moins mystérieux" (p. 8).

7. See, for example, Latour (1986).

8. Latour (1988).

9. Latour (1976). For example: Scientific papers are more action than knowledge (p. 5), and science consists of moves on the checker board of literature and trials of material systems through instruments (p. 6). Propositions 1.1.2. and 1.1.5. of *Irréductions* (Latour 1984) could summarize the theoretical thrust of the paper.

10. Latour (1976, 5).

11. Latour (1982).

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