Interviews

"Where Constant Experiments Have Been Provided"
A Conversation with Bruno Latour

Courtney Weiss: You said that this was your first trip to an English department. [...] I'm interested in how you would situate science studies in relationship to a literature department, especially since science studies seems to be a privileged place where you can see bifurcations, but the English department is in some sense on one side of the bifurcation—the secondary side or the social side.

Bruno Latour: My link with literature, apart from reading it, has been semiotics, Greimasian semiotics, specifically, which I learned at the beginning when it was the heyday of semiotics. I attended some of Greimas's seminars, and I worked with a very interesting semiotician called Paolo Fabri, a European semiotician, and a very interesting scientist who was a semiotician called Françoise Bastide, who died unfortunately in 1988, but I worked with her for a long time. So, I entered literature studies not as literature but as science studies in a way. [...] The question is interesting, but I would not see literature as being on one side of the divide, but—the semiotic tradition, at least—as offering a much larger vision of the access to ontology than is possible with the social sciences, or with the sciences, actually. So, for me, I always considered semiotics as the organon, as a sort of tool box, if you wish, as a sort of intermediary clearinghouse, so to speak, to treat questions of agency, questions of objectiveness, questions of the careers of objects, and I've never been impressed by the separation, which was very important at the time in literature, between semiotics and the context—this big dispute about the autonomization of language—because I've always thought that this was a clever move that Greimas did, to cut out context on the one hand and the locutor on the other because that's what allowed him to develop his whole theory. It was waiting to be grabbed for ontological work, and that's how I always considered literature. So when I read Richard Powers, for me, it's not on a different level than science studies. It is actually more advanced than science studies, because it allows a freedom of movement in the description of entities and worlds, which you never get in the very poor
vocabulary of the social sciences where you have "agent" and "collective" and ten words, maybe, to describe the world. Social sciences do away with an extraordinarily limited vocabulary. But I've never thought for a minute that literature was about the symbolic order. I don't know why. Maybe it is very French, because semiotics was very important when I was trained.

And of course it was the time of Foucault, the time of Derrida—this whole idea that language is not about language, language is about discourse. Even though I never bought the idea that this was a non-ontological claim. I always thought it was, actually, an access to ontology, that it was the ideal organon to give a freedom of movement. And I still teach semiotics every year. I'm always amazed with what you can do with semiotics. You take a scientific paper, like this one here [refers to paper on table], and you immediately begin to have a treatment of objects, a treatment of concepts. You have a grasp on things, a handle, which to my knowledge nothing else gives. Social sciences, even science studies don't give it. If you read science studies literature itself, it is extremely poor when it gets to objects. That's why they are bogged down in social construction.

If you read technology studies, a large body of work, which is empirically interesting, it is very rare to see the object do anything. In the whole materialist description of a technical artifact, the artifacts are not allowed to do much. They are really background, or they are socially determined, so the whole agency is coming from the social. Because it's difficult, it's true. The only people who have done anything that allows you to give agency to the technical artifact is of course coming from literature.

so I haven't answered your question. [Laughter.]

Josh Hoeynck: I would wonder about that in terms of poetry and poetic language, actually. What kind of relationship do you have to poetry and to certain poets? Are there specific poets you enjoy reading because they have the ability to access the object more than others? You lay a lot of stress on poetry in the article that we read—the lectures from Amsterdam—and we saw it in Milosz. Who else do you enjoy reading?

BL: You would be ashamed of my lack of culture in poetry. I did my thesis, in part, on Saint-John Perse, who is a great French poet, but not a very modern poet, I'd say, not very advanced. He is not a formalist—he is, actually, a very ontological poet from the 30s and 40s. So I always read Saint-John Perse, but my culture in poetry is extremely small. I've never believed in the difference between figurative and literal. So, in a way, the work I'm doing now is really on what happens when you don't make that distinction. But there are several ways of not making this distinction. One of them is, of course, saying everything is metaphorical, which is not a good solution. But since I have been interested in science studies so much by this question of what it is to produce what I call the "immutable mobile."

[In] my potted history of philosophy, they were so impressed by the invention of the immutable mobile, a geometrical demonstration, which now has been re-described by this very important book by Reviel Netz. It is possible to go back to what happened when people talked about the literal. [...] Because as a rule I think we should, in this sector, never use again the literal / metaphoric distinction, but always make precise the sort of displacement we are talking about. Because it is this difference that has paralyzed the whole discussion between poetry, literature, the sciences, the social sciences, etc. And it is not new because that's Aristotle—this is at least what Geoffrey Lloyd claims [...] But once you get it, you're stuck. It's very difficult to invent a position that is before this distinction. If you say, "well I want to overcome the difference between metaphoric and literal," you do it from the side of metaphor—this is the danger of the Haraway type of discussion about tropes. I think I have a solution to the problem which comes from the fact of being able to re-describe what it is to be literal, which means on the contrary a highly transformative type of transportation, which I call the "immutable mobile," the other way of making transportation—this transformation—visible.

So now the opposition I make is between "double-click information," which is the myth that you can actually transport without transforming—and double-click is what you do with your mouse—which does not account for science at all (because if science was a double-click information, your brain would just split directly into your scientific papers, which is of course not possible), and which doesn't account for literature, and which does not account for law. And yet, the double-click information is our shibboleth. It is the benchmark with which we judge the de formation of literature—we say it's metaphorical. And we do not do it for science, but if we're doing it for science, we would see science as lying, because it is full of manipulation and deformation and transportation and artificial circumstances. This is what allows us to say that politics is also about lying. So I think it is now possible to go backwards, so to speak, to the origins of the metaphorical / literal divide and to restart the conversation in a good way. The way to do the good way is to always to be very precise about the transformation that you are talking about, the "tropism," to use Haraway's expression. That is the project I'm in now. What I call identifying the modes of existence. I think it's possible. [...]
Things That Speak

Carter Smith: I was curious after yesterday's presentation, in which you used the terms rhetoric, eloquence, and articulation—and then in the Amsterdam Lectures, that the seminar was based, at the beginning, on Milosz—about the poetic voice. I wonder if you have thoughts about the role of the voice, what role the voice plays in your thinking these days. Is there something about the voice that science studies has to take up?

BL: Tell me more about what you mean by voice.

CS: Well, what I think about, as somebody who studies literature, is the way that the voice is often theorized as this sort of middle term between so-called reality and pleasure, or possibility and actuality, or these two terms that cannot be resolved, that the voice seems to stand in a place between them, and I don’t know if that is a metaphor that you are actively trying to cultivate or if it is something that just seems to be a commonality.

BL: I don’t cultivate metaphors; I cultivate truth! I’m not used to voice in that sense. I see what it means in literature, but I’m more interested in what I would call "speech apparatus"; I’ve done lots of work on how you make facts speak. Would that count as a voice?

CS: Yeah.

BL: I’m very interested in Making Things Public about politics as voice, about what it is to speak in the name of politics. I don’t know how you guys would actually characterize this adverbial form: speaking politically, speaking religiously, speaking legally—which is my translation of elocutionary force in Austin. I’m very interested in the question of voice in religion, what does it mean to be spoken—prayers of course, which is one of the topos. I’m very interested in the question of voice in the case of what I studied in ethnopsychiatry, where you speak to the divinities but not to the patient. So I’m very interested in the way that there are difficulties in situating the voice; maybe this is why I have difficulty with your question. Or maybe this is what you mean by voice: logos?

CS: No, I don’t think logos.

BL: The logos is a very important term. The difficulty of hearing the right voice.

Wolfram Schmidgen: Well, in your Politics of Nature you have that passage where you say something like "we are always spoken by something or somebody else, we never speak ourselves." So it’s close to that.

CS: I guess I'm attracted to it because there is a recent book that discusses how the voice is neither part of the body nor a part of language, but that it is the only place where those two things seem to meet. So I would think that it is counter to the logos.

BL: I think that logos was always an uncertainty in the way that we are speaking. The whole great logos tradition—because you mean logocentric tradition, in the Derridian sense—but actually rhetoric was a complete ambiguity about the real sophistic pinpoint of the difficulty of attributing who is speaking when you speak. So, I would phrase my interest differently because of Greimas, who we were discussing before, because of the enunciation regime, the enunciation structure, which is interesting. In technology it's a very big part of describing objects because the enunciation structure is completely bizarre. You are not even talking when you are the sleeping policeman that strolls down on the road with no talking role: agency, delegation, enunciation situation. So, I'm interested in all of these enunciation structures. If you use the language of the semiotician, then now enunciation is everywhere. "The cat is on the mat" implies a highly elaborated enunciation position, so the notion of a structure of enunciation seems to be very interesting even when it's criticized because it's too formalistic. But contrary to you I would include logos in it because of, take theology, the ambiguity of who is speaking when you speak about God. It's one striking definition of what it is to be spoken by God. So if speech and voice—I prefer speech, I feel it's more materialist (speech impairment, speech difficulty)—is situated at a site where the difficulty of doing the attribution of speech and who is doing the...
voice, if this is foregrounded, then I think that is the interesting part. And then it's clear that science is an ideal case because it is so difficult to situate in science as to who and what is doing the speaking. I mean you need a normal system of operation in order to make the facts speak. It is true of religion. It is true of politics. It is true of law. Where is the voice in law? It's a very interesting question, and it's linked to the notion of agency.

**CW:** It's interesting for my field, thinking about this. Because if we have an 18th century text that is describing an object, for example, who is speaking? It seems like you have an author who is writing that is speaking in some ways, but you also have the objects around them who are speaking through the author. But you only have the words themselves that get to have agency. So it seems that agency gets to be a profoundly confused thing.

**BL:** The text where the objects talk?

**CW:** Yes.

**BL:** But it's a ploy?

**CW:** Yes.

**BL:** Is it explicitly claimed as a ploy?

**CW:** Differently. Right?

**WS:** Yes, I don't quite remember how these object narratives start.

**BL:** Do they say: I was awake and I was in my room and suddenly my shoes began to speak to me?

**WS:** That's one scenario.

**CW:** The other one just says, I found these papers and look they were written by a coin.

**WS:** The found manuscript.

**Steven Meyer:** Have you read [Marquis's] *Archy and Mehitabel*?

**CW:** What?

**SM:** I'll tell you later.

**CW:** And I don't mean to talk about my own work in particular. But the question of the voice and who is actually speaking becomes even more complicated when we don't have the human agent in the laboratory or writing the poem, right now, alive.

**BL:** Oh I think it is the opposite. It is very difficult to know who is the agent in the laboratory doing the speaking. That's a very difficult question, who is doing the speaking in the lab. Technology in that sense is more complicated because the objects don't speak at all. I struggled with that in *Aramis* because I tried to make this subway speak, using many tricks probably borrowed from the 18th century. Prosopopoeia. Because it not only speaks, but it speaks about the difficulty of being assembled. It exists only if it is assembled, and actually this machine doesn't exist—so it's disassembled. At the end of the book, Aramis pleads for existence to the assembly of people who are supposed to make it exist. It's a voice but it is in the third voice position. It's explicitly a ploy, which is even more complicated for technology—being silent is what the technique is about, said Butler. It's receding in the background as silence, but it still makes you do things. And of course to make do is part of the logos. Not logocentrism, but voice in my definition—the enunciation regime. And that's why I prefer enunciation because enunciation allows you to also have the situation where there is no speech.

But we are still talking about delegation, enunciation—I have elaborated a whole vocabulary to talk about technology—objects, pre-position, pre-disposition, pre-scription etc. I forget the whole vocabulary of semiotic terms. Here [refers to dinner knife], you do not know who is speaking because there is no speech at all, but there is an enunciation position. I mean, you hear it [hits table with knife handle], and you usually don't take your knife like this. So it is an enunciation position because your hand is already there in the knife, as the encoded enunciation position. Gibson has a very nice expression, "affordance." Affordance isn't a theory of enunciation, but that in the knife you already have the hand that is going to take the knife. So the interesting thing is, of course, how the enunciation regime of technique is reverberated in fiction. So there are two different regimes which are simultaneously visible in the same text, which is of course quite interesting. And it's the same with a science of facts, but it's also different because the great advantage of facts is that they do speak. Really, I'd like to know more about this field of literary study of objects because one of the blocking elements of technology studies is that the social sciences don't have a vocabulary to talk about objects. So, if you in your field have developed tricks — or tricks of the trade or trades of the trick or tricks of the trick —

**SM:** Trick or treat.
BL: It's not in the bookstore. Well that's because it is selling so much, clearly. [Laughter.] But there is a very strange essay by Gerard Genet about description in which he declares it to be the slave of narrative, always in the inferior position, always supporting narrative. I think that is very mistaken in some ways. It assumes, for one thing, that there is a pure distinction between the two and I don't think that there is. Although Genet sees that to some extent too. The question then, the question that I got asked a lot, after I did all of these super-miniature close readings of descriptive passages was, "Well, your book is interested in property, why don't you talk about actual objects? Why don't you talk about material culture in a more concrete sense? Why do you think you can construct an argument about materialism and the way in which objects are related to humans by looking at descriptions?" People were very puzzled by that. And so I guess the question, then, is, is it actually material analysis that you are performing when you are looking closely at a descriptive passage? Or to what extent is it? I think that it is always the whole combination, or to use this term again, the mixture of humans and objects that is present, and that is what you are analyzing by the way.

BL: In the text?

WS: In the text, yes.

BL: It would be interesting to do a little workshop with the tools that you have developed and the tools that we have developed to deal with scientific texts. That would be quite interesting to do because —

WS: What is the tool?

BL: The set of literary practices to make the second degree description of those practices a first degree description. Because the whole idea of science studies is to show that material elements are not in the background but in the foreground. So foregrounding what was in the background is one of the skills that was learned by what I call renewing materialism. Because the definition of materialism that materialists use is a very non-materialist definition of matter, it's a very clichéd definition of matter. So the whole issue is what it is to talk about matter. It's to describe matter, say from this interview that we had this morning, in terms of the brain. If you had the same brain described by a materialist, a so-called materialist brain scientist, with hard wires, connections, versus what these guys were talking about—I don't know about the paper yet—you would have two completely different definitions of what is matter. So you cannot say, "okay, now I am going to give a brain description of this meal here." That would not be an objectification of a brain-meal, of a meal described in brain terms, because there would be many different ways of having a brain bearing on the description of our meal here.

So, objectification in general is a completely open question in literature as well as in social science. And it would be quite interesting to do a workshop on that. Now that we have sophisticated people in literature, interested in the types of entities that we are also interested in, namely objects, descriptions, objectification, frameworks, the conversation can be open. Before, it was very difficult because you guys were supposed to talk about characters and mental states in a sort of clichéd way. Of course, I've never shared this view because I've been involved in semiotics and I know what it is to describe the continuity in time of a character, what Greimas calls its isotopy or its transformation into a human-like or an object-like actant. It costs the same in semiotic energy, so to speak. It makes no difference in terms of semiotics; it makes a difference in terms of figuration, but not in terms of semiotics. That is what Bastide really wanted to do. She did a magnificent series of papers on scientific characters, characters being non-psychologically built entities—but still they were doing things, they were transformed, they had all sorts of characteristics, and of course you could do a literature out of that. Some of the nouveau roman tried to do that. But in a very naïve definition of what it is to be objective.

Objectivity

JH: How objective can you be? It seems that you're always coming at any object from your own perspective. Coming at the object, it's always my view of the object. The perspective is different even from the way Steven would look at the glass over there. How do you approach an objectivity in which you're foregrounding materials properly?

BL: You mean the objectivity, now, of a description?

JH: Yeah, I think description is one method. It seems that you can try to describe it as accurately as you see it, or something
like that. Whitehead's answer for that would be intuition, that you're working on an intuitive appeal.

SM: He would also say that you have to be accurate about what form of abstraction is occurring.

JH: Right, based on the given practices in your epoch.

SM: And that's not intuition.

JH: But does intuition have a role in it, in the act of measuring and things like that?

BL: I've never believed in this argument of multiple points of view. The study of science is an immediate counteraction of that. Because if you have a standpoint, then you can change that standpoint with an instrument. So if there is one thing that does not lock you in a point of view, it is the point of view. Point of view is just the n - 1 station into a trajectory which has many more stations. I mean it's like saying that we cannot have the Hubble telescope because we are on earth. Precisely, you are on earth and you have the Hubble telescope and you also have the Hubbard telescope and so on. I would be very interested for my show to know when is this trope of a multiplicity of points of view entering conversation as a serious question.

SM: As a problem.

BL: As a problem which seems to be unremediable. So of course it's linked to perspective and the invention of perspective in drawing. It's linked to the notion of geometry and projective geometry, which has no point of view. And then it has degenerated recently into the standpoint theory argument—standpoint being, of course, exactly what you escape from easily. I read the newspaper and I escape my point of view immediately by reading the newspaper, right? I just shift—the notion of "debrayage" in Greimas—the shifting of enunciation, by sending myself out in another space and time, delegation, "shifting out" is really useful for that, too. So it's not the multiplicity of point of view, because the multiplicity of point of view is actually a chain, a transformative chain. [. . .] The question is not one of multiplicity of points of view, the question is about the judgment of the accuracy of the account, and that is of course an open question depending on lots of other things. But it's not the case that a literary description would be less objective. On the contrary—again, semiotics shows this very well—we are very good at knowing if a close reading of the text is accurate or not because we have a text there and what the guy says about the text. So if there is one task that is as objective as, I don't know, brain scanning, it's semiotics or literary criticism. Because you have a text and you have an account of the text which are very near, and you can judge by yourself if this guy's an idiot.

SM: You can, although it's interesting, at this conference at the end of last week on William Empson that I was at, there was one nay-sayer who was Helen Vendler —

BL: One what?

SM: Nay-sayer—negative.

BL: Ah, nay-sayer.

SM: — was Helen Vendler who is an important American literary critic of poetry. She was trying to explain to everybody how Empson was a terrible critic, which was actually a rather shocking statement coming from her. But she believes it. And then it becomes clear—and this is where you're describing as the objectivity of the reading experience when you have the critic and the poetry side by side—she hates Empson because Empson reads fragments. He reads little passages, pieces of poems, and she insists that the poem only has whatever meaning it has in the context of the whole poem, and so if you read the fragment in an extravagant way—which is how Empson reads—you can't abide that unless it can be incorporated into a larger reading of the poem as such. So there it becomes very difficult: you actually have the text, you have the reader, and you're going to have, because of a set of assumptions that the judge brings into play, a second judge judging the whole thing that can then explain what's going on.

BL: But that doesn't go against my argument that literature is an objective science, because it means that you can offer a reproof of what you say. It's like science—as long as you are able to make an experiment where what you are experimenting upon is made to be the judge of what you say about it, it's a science. It's much easier in literature because you have a text, and the text can actually be quoted. If you are talking about a black hole in the sky it's more difficult because you have to bring the black hole very close with an instrument, but here it only costs you a scanner.

JH: But in an objective science of literature, we would still have to account for error, then. What if all the critics haven't seen a portion of the text that may be important, because for one reason or another it wasn't published during the writer's lifetime?

BL: You show them! It's like in science.

SM: You've made a discovery.

BL: This is Greimas's great discovery, that objectivity is the inside referent, it's never an outside referent. So as long as you have the production of an inside referent, it doesn't matter if it's comparing a brain scan and a piece of text or if it's a piece of text and another piece of text—the question is whether you have built the internal referent or not. So I've never bought the idea
that the social sciences or the humanities would be of a different type of objectivity because the question is that you need to bring proof. Now, to whom you talk is of course different, and the reference chain is different, and lots of other differences, but not THE difference that there would be people doing interpretation on the one hand and people doing objectivity on the other. That, I think, would be a great mistake, actually, to accept this inferior position for the so-called interpretive sciences. That's why I've never believed in the difference between hermeneutic sociology and so-called objective, or positivist, sociology. The question is do you build texts with an internal referent or not? If there is no internal referent, then okay, it's true, there's no way to make a proof of what you say. The best people at producing the internal referent are of course novelists themselves. They are absolutely amazingly good at producing the internal referent. Science as a scientific text does not break out of literature by the access to the external referent. I've shown that in many papers. It breaks it because of a multiplicity of levels in which the internal referent is produced, and by the graphics themselves. What amazes me, ladies and gentlemen of the English department, is that so few novelists and poets have used this amazing, powerful way of producing internal reference. Can you name one book that uses a fraction of a scientific repertoire to produce fiction? Because, strangely enough, I love Richard Powers, but it's still prose. Even Plowing the Dark—there's not one image in Plowing the Dark.

CS: There's Sebald —

BL: Sebald is right. In Vertigo there is an amazing use of photography that has no direct contact with what he is saying. Why is it, though, that no one uses, you take the simplest scientific text—I could do a simple exercise with you. There's more literary invention in this guy [refers to scientific paper on table] who probably hasn't read a novel since he read Uncle Tom in first grade, if they do that sort of thing.

SM: Not in first grade, but they do read it.

BL: Even citation is extraordinarily rare. It's such a powerful tool to produce the internal referent. Some, of course, do use it. Günter Grass actually uses it, and Heinrich Böll a bit with the notion of the document. More extraordinarily, even in detective stories very rarely do you actually get the data. And yet the genre is sort of scientific.

SM: Would you accept an argument that proposed that one form of internal reference is equivalent to what in literary circles one is talking about when one is interestingly talking about form? So it's really an internal referent. This [refers to scientific paper] is an internal referent which has, however, been folded into the text, or juxtaposed with the text, but it's not actually part of the text —

BL: It is!

SM: — it's not part of the text in the sense that it's not made out of the words. It's something that's been folded into the text itself. But now when you start analyzing, semiotically, a scientific report, that involves actually locating the internal referent that's in the construction of the essay rather than the internal referent that's been imbedded in the essay.

BL: It's both.

SM: Both, but, therefore, one of the reasons why novelists are less inclined to do this than scientists would be that they're actually much more focused on what you might say is a form of internal referent that isn't quite as blatant.

BL: Yeah, I agree, that's why it's easier to study the semiotic text or a text like that. But the number of operations, which is what I call the folding of the scientific text is probably much greater.

JH: There are definitely poets who got interested in questions of proof and how you would write a poem that would be something equivalent to a mathematical proof. [Robert] Duncan was interested in that, [Charles] Olson was interested in it, and they were reading Greimas and people like this and using space in interesting ways as they wrote. Which starts to make the poem have lines and arrows and instances where this plus this equals this, where it becomes a kind of question of a really — well, on one level it was completely mad, but on another level, you find out about what they were reading, and it seems that they were trying to think — to speculate — about what that would look like.

BL: You mean outside of formalism? Because formalism, of course, has been used a lot to cross the line between math and poetry.

JH: Yeah, I think it's definitely outside of formalism. It's too active to be formalism.

BL: I think the block, the bottleneck, is not at all in the question "do we have a multiplicity of interpretations, can we provide objectivity or not?" In my view, the bottleneck is in the difficulty of describing what happens to agency when there are no anthropomorphic characters. And there is no vocabulary—no accepted vocabulary—to talk about that. So every time you do that, immediately people say—I know because I have done it many times—people say, "Oh, you anthropomorphize the nonhuman." Because they have such a narrow definition of what is human, that whenever a nonhuman does something, it looks human, as if it's sort of a Disney type of animation. So if my "sleeping policeman," actually a speed-trap, begins to really do something, people say "yes, but you are projecting human intention onto it," even though it has been made precisely so that there is no policeman there and there is no human intention there and you break your car if you speed.

The whole mechanism by which this entity is brought to the fore is not human. It's not a human character. When [Michel] Callon does this big paper on scallops, people immediately say "yes, but scallops are treated like human characters"—just because they begin to do something! [. . .] I think that the bottleneck is that we don't know how to define the nonhuman at all. And thus we don't know how to define the human. So literature is the place where constant experiments have been provided. It's to the social sciences what mathematics is to physics. It's the constant invention of operations of what it is to be able to connect agency, so to speak, in the same way that mathematics is constantly making a—useless, most of the time—a useless possibility that later might come in very handy. And in that sense, it might be related to poetry. But the problem is that you need to do the connection, because, if not, you have literature in one department and social sciences in another.

Introduction

When Bruno Latour suggests that you're wrong, it's difficult not to agree with him. One would think, for example, that among a small gathering of English faculty and graduate students, Professor Latour's answer to a question about poetic language — "I've never believed in the difference between figurative and literal" — would be more hotly contested.

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