

On using ANT for studying information systems: a (somewhat) Socratic dialogue

BRUNO LATOUR

Prologue

For this chapter on the use of Actor Network Theory (ANT), I have conflated several real conversations into one imaginary one.¹ Since English was not the native tongue of any of the participants, some improprieties have been kept.²

The scene in which the dialogue takes place is an office at the LSE on a dark February Tuesday. It is the end of the afternoon, close to the time for moving to the nearby Beaver pub for a pint of beer. A quiet but insistent knock is heard on the door of the *Professor*. An IS doctoral *student* peers into the office.

Introductions: on negative and positive theories

- Student: Am I bothering you?
- Professor: Not at all; these are my office hours anyway. Come in, have a seat.
- S: Thank you.
- P: So . . . I take it that you are a bit lost?
- S: Well, yes. I am finding it difficult, I have to say, to apply Actor Network Theory to my case studies.
- P: No wonder—it isn't applicable to anything!
- S: But we were taught . . . I mean . . . it seems like hot stuff around here. Are you saying it's really *useless*?
- P: It might be useful, but only if it does not 'apply' to something.
- S: Sorry: are you playing some sort of Zen trick here? I have to warn you, I'm just an Information Systems doctoral student, so don't expect . . . I'm not too into French stuff either, just read a bit of *Thousand Plateaus* but couldn't make much sense of it . . .
- P: I'm sorry, I wasn't trying to say anything cute. Just that ANT is first of all a *negative* argument. It does not say anything positive on any state of affairs.
- S: So what can it do for me?
- P: The best it can do for you is to say something like: 'When your informants mix up organization and hardware and psychology and politics in one sentence, don't break it down first into neat little pots; try to

follow the link they make among those elements that would have looked completely incommensurable if you had followed normal academic categories.’ That’s all. ANT can’t tell you positively what the link is.

- S: So, why is it called a ‘theory’ then, if it says nothing about the things we study?
- P: It’s a theory . . . and a strong one I think . . . but its about *how* to study things, or rather how not to study them. Or, rather, how to let the actors have some room to express themselves.
- S: Do you mean that other social theories don’t allow that?
- P: Yes, and because of their very strengths: they are good at saying *positive* things about what the social world is made of. In most cases that’s fine. The ingredients are known. But not when things are changing fast and—I would add—not in information studies, where boundaries are so terribly fuzzy. *New* topics, that’s what you need ANT for.

AQ: Please check if the running head is okay.

On networks and the importance of description

- S: But my agents, actors . . . I mean the people I’m studying at IBM, are actor networks. They are connected to a lot of other things, they are all over the place . . .
- P: But see, that’s the problem. You don’t need Actor Network Theory to say that: any available social theory would do the same. It’s useless to pick this very bizarre argument to show that your informants are in a network.
- S: But they are. They form a network. Look, I have been tracing their connections: computer chips, standards, schooling, money, rewards, countries, cultures, corporate board rooms . . . everything. Haven’t I described a network in your sense?
- P: Not necessarily. I agree this is terribly confusing, and it’s our fault: or rather it’s entirely Callon’s fault! He’s the one who came up with this horrible word . . . But you should not confuse the network that is drawn by the description and the network that is used to make the description.
- S: . . .?
- P: Really! Surely you’d agree that drawing with a pencil is not the same thing as drawing the shape of a pencil. It’s the same with this ambiguous word, network. With Actor Network you may describe something that doesn’t at all look like a network; conversely, you may describe a network which is not all drawn in an ‘Actor Networky’ way. You are simply confusing the object with the method. ANT is a method, and mostly a negative one at that; it says nothing about the *shape* of what is being described with it.
- S: This is confusing . . . my IBM folks, are they not forming a nice, revealing, significant network?
- P: Maybe yes . . . I mean, surely, yes—but so what?
- S: Then, I can study them with Actor Network Theory!

- P: Again, maybe yes, but maybe not. It depends entirely on what you make your actors, or actants, do. Being connected, being interconnected, being heterogeneous is not enough. It all depends on the sort of action that is flowing from one to the other, hence the words ‘net’ and ‘work’.
- S: Do you mean to say that once I have shown that my actors are related in the shape of a network, I have not yet done an ANT study?
- P: That’s exactly what I mean; ANT is more like the name of a pencil or a brush than the name of an object to be drawn or painted.
- S: But when I said ANT was a tool and asked you if it could be applied, you objected.
- P: Because it’s not a tool. Or, rather, because tools are never ‘mere’ tools ready to be applied: they always change the goals as well. Actor Network . . . I agree the name is silly . . . allows you to produce some *effects* that you would have never obtained by any other social theory. That’s all that I can vouch for. It’s a very common experience: drawing with a lead pencil or with charcoal is not the same either; cooking tarts with a gas oven is not the same as with an electric one.
- S: But that’s not what my supervisor wants. He wants a frame in which to put my data.
- P: If you want to store more data, buy a bigger hard disk . . .
- S: He always says to me: ‘You need a framework.’
- P: Ah? So your supervisor is in the business of selling pictures? It’s true that frames are nice for that: gilded, white, carved, baroque, aluminium, etc. But have you ever met a painter who began her masterpiece by first choosing the frame? That would be a bit odd, wouldn’t it?
- S: You’re playing with words. By ‘frame’ I mean a theory, an argument, a general point, a concept—something for making sense of the data. You always need one.
- P: No you don’t! Tell me, if some X is a mere ‘case of’ Y, what is more important to study: X which is the special case, or Y which is the rule?
- S: Probably Y . . . but X too, just to see if its really an application of . . . well, both I guess.
- P: I would bet on Y myself, since X will not teach you anything new. If something is simply an instance of some other state of affairs, go study this state of affairs instead. A case study that needs a frame in addition is a case study that was badly chosen to begin with!
- S: But you always need to put things into a context, don’t you?
- P: I have no patience for context, no. A frame makes a picture look nicer, it may direct the gaze better, increase the value, but it doesn’t add anything to the picture. The frame, or the context, is precisely what makes no difference to the data, what is common knowledge about it. If I were you I would abstain from frameworks altogether. Just describe.
- S: ‘Just describe’. Sorry to ask, but is this not terribly naïve? Is this not exactly the sort of empiricism, or realism, that we have been warned against? I thought your argument was more sophisticated than that.

P: Because you think description is easy? You must be confusing it, I guess, with strings of clichés. For every hundred books of commentaries, arguments, glosses, there is only one of description. To describe, to be attentive to the concrete states of affairs, to find the uniquely adequate account of a given situation—I have, myself, always found this incredibly demanding. Ever heard of Harold Garfinkel?

On interpretative and objectivist perspectives

- S: I'm lost here, I have to say. We have been told that there are two types of sociology, the interpretive and the objectivist. Surely you don't want to say you are of the objectivist type?
- P: You bet I am! Yes, by all means.
- S: You? But we have been told you were something of a relativist. You have been quoted as saying that even the natural sciences are not objective . . . So, surely you are for interpretive sociology, viewpoints, multiplicity of standpoints, all that.
- P: I have no patience for interpretive sociologies, whatever you may call by that name. No. On the contrary, I firmly believe that sciences are objective: what else could they be? They're all about objects, no? I simply say that objects might look a bit more complicated, folded, multiple, complex, entangled than what the 'objectivist', as you say, would like them to be.
- S: But isn't that exactly what 'interpretive' sociologies argue?
- P: Oh no, not all. They would say that *human* desires, *human* meanings, *human* intentions, etc. introduce some 'interpretive flexibility' into a world of inflexible objects, of pure causal relations. That's not at all what I am saying. I would say that this computer, this screen, this keyboard—as objects—are made of multiple layers, exactly as much as you, sitting here are: your body, your language, your questions. It's the object itself that adds multiplicity, or rather the thing, to speak like Heidegger, the 'gathering'. When you speak of hermeneutics, whatever you do you always expect the second shoe to drop: someone inevitably will add 'but of course there also exist "natural", "objective" things that are not interpreted'.
- S: That's just I was going to say! There are not only objective realities, but also subjective ones. This is why we need both types of social theories.
- P: See? That's inevitable, a trap: 'Not only but also'. Either you extend the argument to everything, but then it becomes useless as 'interpretation' becomes another synonym for 'objectivity'—or else you limit it to one aspect of reality, the human, and then you are stuck, since objectivity is always on the other side of the fence. And it makes no difference if the other side is greener or more rotten, it's beyond reach anyway.
- S: But you wouldn't deny that you too possess a standpoint, that ANT is situated too, that you too add another layer of interpretation, a perspective?
- P: No, why would I 'deny' it? But so what? The great thing about a standpoint is, precisely, that you can change it. Why would I be stuck with it? Astronomers in

Greenwich, down the river from here, have a limited perspective from where they are on earth. And yet, they have been pretty good at shifting this perspective, through instruments, telescopes, satellites. They can now draw a map of the distribution of galaxies in the whole universe. Pretty good, no? Show me one standpoint, and I will show you two dozen ways to shift out of it. Listen, all this opposition between ‘standpoint’ and ‘view from nowhere’, you can safely forget. And also this difference between ‘interpretive’ and ‘objectivist’. Leave hermeneutics aside and go back to the object: or rather to the thing.

- S: But I am always limited to my situated viewpoint, to my perspective, to my own subjectivity.
- P: You are very obstinate! What makes you think that having a viewpoint means ‘being limited’, or especially ‘subjective’? When you travel abroad and you follow the sign ‘belvedere’, ‘panorama’, ‘bella vista’, when you finally reach the breathtaking site, in what way is this a proof of your ‘subjective limits’? It’s the thing itself, the valley, the peaks, the roads that offer you this grasp, this handle. The proof is that, two meters lower, you see nothing because of the trees, and two meters higher nothing because of a parking lot. And yet you have the same ‘subjectivity’, and have exactly your very same ‘standpoint’. If something supports many viewpoints, it’s just that it’s highly complex, intricately folded, nicely organized, and beautiful—yes, *objectively* beautiful. If you can have many viewpoints on a statue, it’s because the statue itself is in three-dimensions and allows you, yes, *allows* you to turn around it.
- S: But certainly, nothing is objectively beautiful: beauty has to be subjective... taste and colour, relative... I am lost again. Why would we spend so much time here fighting objectivity then? What you say can’t be right.
- P: Because the things people call ‘objective’ are most of the time a series of clichés. We don’t have a good description of anything: of what a computer, a piece of software, a formal system, a theorem is. We know next to nothing of what this thing you are studying—*information*—is. How would we be able to distinguish it from subjectivity? In other words, there are two ways to criticize objectivity: one is by going *away* from the object to the subjective human view point. But the other direction is the one I am talking about: back to the object. Don’t leave objects to be described only by the idiots. As we saw in class yesterday, a computer described by Alan Turing is quite a bit richer and more interesting than the ones described by *Wired Magazine*. The name of the game is to get back to empiricism.
- S: Still, I am limited to my own view.
- P: Of course you are, but again, so what? Don’t believe all that rubbish about being ‘limited’ to one’s perspective. All of the sciences have been inventing ways to *move* from one standpoint to the next, from one frame of reference to the next, for heaven’s sake: that’s called relativity.

On relativism, ANT and context

- S: Ah! So you confess you are a relativist.
- P: But of course, what else could I be? If I want to be a scientist and reach objectivity, I have to be able to travel from one frame to the next, from one standpoint to the next.
- S: So you associate objectivity with relativism?
- P: 'Relativity', yes, of course. All the sciences do the same. Our sciences too.
- S: But what is *our* way to change our standpoints?
- P: I told you, we are in the business of descriptions. Everyone else is trading on clichés. Enquiries, polls, whatever—we go, we listen, we learn, we practice, we become competent, we change our views. Very simple really: it's called field work. Good field work always produces a lot of descriptions.
- S: But I have lots of descriptions already. I'm drowning in them. That's just my problem. That's why I'm lost and that's why I thought it would be useful to come to you. Can't ANT help me with this mass of data? I need a framework.
- P: 'My Kingdom for a frame!'. Very moving; I think I understand your desperation. But no, ANT is pretty useless for that. Its main tenet is that actors themselves make everything, including their own frames, their own theories, their own contexts, their own metaphysics, even their own ontologies... So the direction to follow would be more descriptions, I am afraid.
- S: But descriptions are too long. I have to *explain* instead.
- P: See? This is where I disagree with most of the training in the social sciences.
- S: You would disagree with the need for social sciences to provide an explanation for the data they accumulate? And you call yourself a social *scientist* and an objectivist!
- P: I'd say that if your description needs an explanation, it's not a good description, that's all. Only bad descriptions need an explanation. It's quite simple really. In any case, what is meant by an 'explanation' most of the time? Adding another actor to give to those already described the energy necessary to act. But if you have to add one, then the network was not complete, and if the actors already assembled do not have enough energy to act, then they are not 'actors', but mere intermediaries, dopes, puppets. They do nothing, so they should not be in the description anyhow. I have never seen a good description in need, then, of an explanation. But I have read countless bad descriptions to which nothing was added by a massive addition of 'explanations'.
- S: This is very distressing. I should have known: the other students warned me not to touch ANT stuff... Now you are telling me that I shouldn't even try to explain anything.
- P: I did not say that, but just that either your explanation is relevant and, in practice, you are adding a new agent to the description as the network is simply longer than you thought—or it's not an actor that makes any difference and you are simply adding something irrelevant, which helps neither the description nor the explanation. In that case, throw it away.

- S: But my colleagues use a lot of them: ‘IBM corporate culture’, for instance, or ‘British isolationism’, or ‘market pressure’, or ‘self-interest’. Why should I deprive myself of those contextual explanations?
- P: You can keep them if this amuses you, but don’t believe they explain anything—they are mere ornaments. At best they apply equally to all your actors, which means they are absolutely irrelevant since they are unable to introduce a difference among them. As a rule, context stinks. It’s simply a way of stopping the description when you are tired or too lazy to go on.

On written descriptions, stories, and theses

- S: But that’s exactly my problem: to stop. I have to complete this Ph.D.; I have just eight more months. You always say ‘more descriptions’, but this is like Freud, indefinite analysis. When do you stop? My actors are all over the place. Where should I go? What is a complete description?
- P: Now that’s a good question because it’s a practical one. As I always say: a good thesis is a thesis that is done. But there is another way to stop than by ‘adding an explanation’ or ‘putting it into a frame’.
- S: Tell me it then.
- P: You stop when you have written your 80,000 words or whatever is the format here, I always forget.
- S: Oh! That’s really great, so helpful, many thanks! I feel so relieved . . . So my thesis is finished when it’s finished . . . But that’s a textual limit, it has nothing to do with method.
- P: See? That’s again why I totally disagree with the ways doctoral students are trained. Writing texts has everything to do with method. You write a text of so many words, in so many months, for so much grant money, based on so many interviews, so many hours of observation, so many documents. That’s all. You do nothing more.
- S: Of course, I do: I learn, I study, I explain, I criticize, I . . .
- P: But all those great goals: you achieve them through a text, don’t you?
- S: Of course, but it’s a tool, a medium, a way of expressing myself.
- P: There is no tool, no medium, only mediators. A text is thick. That’s an ANT tenet, if any.
- S: Sorry, Professor, I told you, I have never been into French stuff. I can write in programming languages like C and even C++, but I don’t do Derrida, semiotics, any of that. I don’t believe the world is made of words and all of that . . .
- P: Don’t try to be ironic, it doesn’t suit the engineer in you. And anyway I don’t believe that either. You ask me how to stop. I am just telling you that the best you will be able to do, as a Ph.D. student, is to *add* a text read by your advisors and maybe a few of your informants—three or four fellow doctoral students—to a given state of affairs. Nothing fancy in that. Just plain realism.

One solution for how to stop is to ‘add a framework’, an ‘explanation’; the other is to put the last word to the last chapter of your damned thesis.

- S: I have been trained in the sciences. I am a systems engineer—I am not coming to Information Systems to abandon that. I am willing to add organizations, institutions, people, mythologies, psychology to what I already know. I am even prepared to be ‘symmetric’, as you said, about those various factors. But don’t tell me that science is about telling nice stories. This is the difficulty with you. One moment you are a completely objectivist—naïve realist even: ‘just describe’—and the other moment a completely relativist: ‘tell some nice stories and run’. Is this not so terribly French?
- P: And that makes you so terribly what? Don’t be silly. Who talked about ‘nice stories’? Not me. I said you were *writing* a Ph.D. thesis. Can you deny that? And then I said that this so-many-words-long Ph.D. thesis—which will be the only lasting result of your stay among us—is thick.
- S: Meaning?
- P: Meaning that it’s not just a transparent window pane, transporting without deformation, the information about your study. Can you deny that? I assume that you agree with this slogan of my class: ‘There is no in-formation, only trans-formation’, or translation if you want. Well, then, this is surely also true of your Ph.D. thesis, no?
- S: Maybe, but in what sense does it help me be more scientific, that’s what I want to know. I don’t want to abandon the ethos of science.
- P: Because this text, depending on the way it’s written, will or will not capture the actor network you wish to study. The text, in our discipline, is not a story, not a nice story, it’s the functional equivalent of a laboratory. It’s a place of trials and experiments. Depending on what happens in it, there is or there is not an actor—and there is or there is not a network being traced. And that depends entirely on the precise ways in which it is written. Most texts are just plain dead.
- S: But no one mentions ‘text’ in our programme. We talk about ‘studying information’, not ‘writing’ about it.
- P: That’s what I am telling you: that you are being badly trained! Not teaching social science doctoral students to *write* their theses is like not teaching chemists to do laboratory experiments. That’s why I am teaching nothing nowadays but writing. I feel like an old bore always repeating the same thing: ‘describe, write, describe, write, exercise . . .’
- S: The problem is that that’s not at all what my supervisor wants. He wants my case studies to be generalizable. He does not want ‘mere description’. So, even if I do what you want, I will have one nice description of one state of affairs, and then what? Then, I still have to put it into a frame, find a typology, compare, explain, generalize. That’s why I’m starting to panic.
- P: You should panic only if your actors were not doing that constantly as well, actively, reflexively, obsessively: they too compare, they too produce typologies, they too design standards, they too spread their machines as well as their

organizations, their ideologies, their states of mind. Why would you be the one doing the intelligent stuff while they act like a bunch of morons? What they do to expand, to relate, to compare is what you have to describe as well. It's not another layer that you would have to add to the 'mere description'. Don't try to shift from description to explanation: simply continue the description. What your own ideas are about IBM is of no interest compared to how this bit of IBM itself has managed to spread.

On actors who leave no trace and don't need to learn from a study

- S: But if my people don't act, if they don't actively compare, standardize, organize, generalize, what do I do? I will be stuck! I won't be able to add any other explanations.
- P: You are really extraordinary. If your actors don't act, they will leave no trace whatsoever either. So you will have no information at all: you will have nothing to say.
- S: You mean I should remain silent when there is no trace?
- P: Incredible! Would you raise this question in any of the natural sciences? It would sound totally silly. It takes a social scientist to claim that they can go on explaining even in the absence of any information. Are you really prepared to make up data?
- S: No, of course not, but still I want . . .
- P: Good, at least you are more reasonable than most of your colleagues. No trace left, thus no description, then no talk. Don't fill it in. It's like a map of a country in the sixteenth century: no one went there, nor did anyone come back—so leave it blank! *Terra incognita*.
- S: But what about invisible entities acting in a hidden way?
- P: If they act, they leave some trace, then you have some information, then you can talk about them. If not, just shut up.
- S: But if they are repressed, denied, silenced?
- P: Nothing on earth allows you to say they are there without bringing in the proof of their presence. That proof might be indirect, exacting, complicated, but you need it. Invisible things are invisible. Period.
- S: 'Proof'. Isn't that terribly positivistic?
- P: I hope so, yes. What's so great about saying that things are acting whose existence you can't prove? I am afraid you are confusing social theory with conspiracy theory: although, these days, I agree, most of social science comes down to that.
- S: But if I add nothing, I simply repeat what actors say.
- P: What would be the use of adding invisible entities that act without leaving any trace and make no difference to any state of affairs?

On reflexivity and explanations

- S: But I have to teach the actors something they didn't know; if not, why would I study them?

- P: You social scientists, you always baffle me. If you were studying ants, instead of ANT, would you expect ants to *learn* something from your study? Of course not. They know, you don't. They are the teachers, you learn from them. You explain what they do to yourself, for your own benefit, not for them, who don't care a bit. What makes you think that a study was supposed to teach things to the people being studied?
- S: But that's the whole idea of the social sciences! That's why I'm here: to criticize the ideology of information, to debunk the many myths of information technologies, to gain a critical edge over all the technical hype. If not, believe me, I would still be in Silicon Valley, and I would be making a lot more money . . . well, maybe not since the bubble burst . . . But anyway, I have to provide some reflexive understanding to the people . . .
- P: . . . who of course, before you came, were unreflexive!
- S: In a way, yes. No? They did things but did not know why . . . What's wrong with that?
- P: What's wrong is that it's much too cheap. Most of what social scientists call 'reflexivity' is just asking totally irrelevant questions to people who ask other questions for which the analyst does not have the slightest beginning of an answer. Reflexivity is not a birthright you transport with you, just because you are at the LSE. You and your informants have different concerns—when they intersect it's a miracle, and miracles are rare . . .
- S: But if I have nothing to add to what actors say, I won't be able to be critical.
- P: See, one moment you want to explain and play the scientist, while the next moment you want to debunk and criticize and play the militant . . .
- S: I was going to say: one moment you are a naïve realist: back to the object; and the next you say that you just write a text that adds nothing but simply trails behind your famous 'actors themselves'. This is totally apolitical. No critical edge that I can see.
- P: Tell me, Master Debunker, how are you going to gain a 'critical edge' over your actors? I am eager to hear.
- S: Only if I have a framework. That's what I was looking for in coming here, but obviously ANT is unable to give me any.
- P: And I am pretty glad it doesn't . . . This framework of yours, I assume, is hidden to the eyes of your informants, and revealed by your study?
- S: Yes, of course. That should be the value of my work—I hope so at least. Not the description, since everyone knows that anyway, but the explanation, the context they have no time to see, the typology. That's what I can deliver, and they are interested, and ready to give me access to their files, and willing to pay for it!
- P: Good for you. What you are telling me is that in your six months of field work you can, by yourself, just by writing a few hundred pages, produce more knowledge than those 340 engineers and staff you have been studying?
- S: Not 'more' knowledge maybe, but different, yes, I hope. Shouldn't I strive exactly for that? Is this not why I am in this business?

- P: I am not sure what business you are in, but how *different* is the knowledge you produce, that's the whole question.
- S: It's the same kind of knowledge as all the sciences, the same way of explaining things: by going from the case at hand to the cause, and once I know the cause—then I can generate the effect as a consequence. What's wrong with that? It's like a pendulum that has been moved far from equilibrium. If I know Galileo's law, I don't even need to look at any concrete pendulum anymore, I know exactly what will happen—provided I forget the perturbations, of course.
- P: Of course! So what you are hoping for is that your explanatory framework will be to your case study what Galileo's law is to the fall of the pendulum—minus the perturbations.
- S: Yes, I guess so, sort of, though less scientific naturally. Why? What's wrong with that?
- P: Nothing. It would be great, but is it feasible? It means that, whatever a given concrete pendulum does, it will add no new information to the law of falling bodies. The law holds *in potentia* everything there is to know about the state of affairs. The concrete case is simply the 'realization of a potential', to be technical, which was already there.
- S: Is not that an ideal explanation?
- P: That's just the problem: it's an ideal, and it's the ideal of an ideal explanation. I doubt somewhat that your IBM subsidiary behaves that way. And I am pretty confident you can't produce the law of its behaviour that will allow you to deduce everything as the realization *in concreto* of what was already there potentially.
- S: Minus the perturbations . . .
- P: Yes, yes, yes, this goes without saying . . . admirable modesty . . .
- S: Are you making fun of me here? Striving for that sort of framework seems worthwhile to me . . .
- P: But is it desirable? See, what you are really telling me is that the actors in your description make *no difference whatsoever*. They have simply realized a potential, apart from minor deviations. Which means they are not actors at all: they simply carry the force that comes through them. So, you have been wasting your time describing people, objects, sites that are nothing, in effect, but passive intermediaries since they do nothing on their own. Your fieldwork is simply wasted. You should have gone directly to the potential.

On the abyss between structuralism and ANT

- S: But that's what a science is for! Just that: finding the hidden structure that explains the behaviour of those agents you thought were doing something, but in fact are simply place-holders for something else.
- P: So you are a structuralist! Out of the closet, finally. Place-holders, that's what you call actors? And you want to do Actor Network Theory at the same time! That's stretching the limits of eclecticism pretty far.

- S: Why can't I do both? Certainly if ANT has any scientific content, it has to be structuralist.
- P: Have you realized that there is the word 'actor' in actor network? Can you tell me what sort of action a place-holder does in a structuralist explanation?
- S: It fulfils a function, that's what is so great about structuralism. Any other agent in the same position would be forced to do the same . . .
- P: So, a place-holder, by definition, is entirely substitutable to any other?
- S: Yes, that's what I am telling you is so great.
- P: But that's also what is so silly and what makes it radically incompatible with ANT: an actor that makes no difference, in my vocabulary, is not an actor at all. An actor, if words have any meaning, is exactly what is *not* substitutable for anyone else; it's a unique event, totally irreducible to any other. Except, that is, if you *make* one commensurable with another one by some sort of standardization, but even that requires a third actor, a third event.
- S: So you are telling me that ANT is not a science.
- P: Not a structuralist science, that's for sure.
- S: That's the same, any information system science . . .
- P: No! If information is transformation, translation . . . IS cannot rely, by definition, on any structuralist explanation.
- S: 'Systems of transformation', that's exactly what structuralism is!
- P: No way, my friend, since in structuralism nothing happens. You don't seem to fathom the abyss that exists between structuralism and ANT: if I want to have actors in my account, they have to *do* things, not to be place-holders; if they do something they have to make a difference. If they make no difference, drop them, start the description anew. You want a science in which there is no event.
- S: Eventful stories, that's what you want! Always stories. I am talking about explanation, knowledge, critical edge, not writing scripts for soap operas on TV.
- P: I was getting to that. You want your bundle of a few hundred pages to make a difference, no? Well then, you have to be able to prove that your description of what people do, when it comes back to them, *does* make a difference to the way they were doing things. Is this what you call having a 'critical edge'?
- S: I guess so, yes.
- P: But then you would agree that it wouldn't do to provide them with irrelevant causes that make no difference at all to what they do, because they are too general?
- S: Of course not; I was talking about *real* causes.
- P: But those won't do either because, if they existed—which I doubt very much—they would have no other effect than transforming your informants into the place-holders of other actors, which you call function, structure, etc. So, in effect, they would be not actors anymore but dopes, puppets: and when I say puppet . . . I have shown that even puppets are making you do quite a lot of unexpected things . . . Well, anyway, you are making them out to be

nothing; the best they could do would be to add some minor perturbations like the concrete pendulum which only adds slight wobbles.

S: ...

P: Now you have to tell me what is so politically great about transforming those you have studied into hapless, 'actless' place-holders for hidden functions that you, and you only, can see and detect?

S: Hmm, you have a way of turning things upside down... I am not so sure now. If actors become aware of the determinations imposed on them... more conscious... more reflexive... is their consciousness not raised somewhat? They can now take their fate in their own hands. They become more enlightened, no? If so, I would say that now, at last—in part thanks to me—yes, there are more actors now, fully.

On science, authority, and relevance

P: Bravo, bravissimo! So an actor for you is some fully determined agent, a place-holder for a function, plus a bit of perturbation, plus consciousness. Horrible, simply horrible... and he wants to do ANT! After you have reduced them from actors to place-holders you want to add insult to injury and generously bring them the reflexivity they had before and that you have ignored by treating them in a structuralist way. Magnificent! They were actors before you came in with your 'explanation'—don't tell me that it's your study that might make them so. Great job. Bourdieu could not have done better...

S: You might not like Bourdieu, but at least he is a real scientist, and even better, he is politically relevant. As far as I can tell, you are neither...

P: Thanks. I have been studying the links between science and politics for about thirty years, so I am hard to intimidate with talk of what is 'politically relevant'.

S: Arguments of authority don't intimidate me either, so thirty years makes no difference to me.

P: *Touché*... But your question was: 'What can I do with ANT'? I answered it: no structuralist explanation. The two are completely incompatible. Either you have actors who realize potentialities and they are not actors at all, or you describe actors who are making virtualities actual (this is Deleuze by the way), and that requires very specific texts, and your connection with those who you study requires very specific protocols to work. I guess this is what you would call 'critical edge' and 'political relevance'.

S: So, where do we differ? You too want to have a critical edge.

P: Yes, maybe, but I am sure of one thing: it's not automatic, and most of the time, it will fail. Two hundred pages of interviews, observations, etc. will not make any difference whatsoever. To be relevant requires another set of extraordinary circumstances. It's an event. It requires an incredibly imaginative protocol. As great, as rare, as surprising as Galileo with his pendulum.

S: What should I do then? Pray for a miracle?

- P: But why do you want your tiny little text to be more automatically relevant—or not—to those who might be concerned than, say, a huge laboratory of natural sciences? Look at how much it takes for Intel to be relevant for mobile phones! And you want everyone to have a label ‘LSE inside’ at no cost at all? To become relevant, you need extra work.
- S: Just what I need: the prospect of even more work.
- P: But that’s the whole point: if it’s scientific, then it can fail; if it’s automatic, across the board, all purpose, then it can’t possibly be scientific. It’s simply irrelevant.
- S: Great reassurance, nice of you to remind me that I can fail my thesis!
- P: You are confusing science and mastery. Tell me, can you imagine one single topic to which, for instance, Bourdieu’s critical sociology which you are so fond of, could possibly *not* apply?
- S: But I can’t imagine one single topic to which ANT would apply automatically!!
- P: Beautiful, you are so right, that’s exactly what I think . . .
- S: That was not meant as a compliment.
- P: But I take it as a true one! An application of anything is as rare as a good text of social science.
- S: May I politely remark that, for all your exceedingly subtle philosophy of science, you have yet to tell me how to write one . . .
- P: You were so eager to add frames, context, structure, to your mere descriptions, how would you have listened to me?
- S: But what’s the difference between a good and a bad ANT text?
- P: Now, that’s a good question! Answer: The same as between a good and a bad laboratory. No more, no less.
- S: Well, okay, um, thanks . . . It was nice of you to talk to me. But I think after all, instead of ANT, I will use Luhmann’s autopoiesis as an underlying framework—that seems to hold a lot of promise. Or maybe I will use a bit of both. Don’t you like Luhmann?
- P: I would leave aside all ‘underlying frameworks’, if I were you.
- S: But, your sort of ‘science’, it seems to me, means breaking all the rules of social science training.
- P: I prefer to break them and follow my actors . . . As you said, I am, in the end, a naïve realist.
- S: But see, I’m just a Ph.D. student. You’re a professor. You have published, you can afford to do things that I can’t. I have to listen to my supervisor. I simply can’t follow your advice too far.
- P: Why come to me then?
- S: For the last half hour, I have to confess, I’ve been wondering the same thing . . .

Background reading

Callon, M., and Latour, B. (1981). ‘Unscrewing the Big Leviathans: How Do Actors Macrostructure Reality. Advances in Social Theory and Methodology’, in K. Knorr and

- A. Cicourel (eds.), *Toward an Integration of Micro and Macro Sociologies*. London: Routledge, 277–303.
- Ciborra, C. U. (2000) (ed.). *From Control to Drift: The Dynamics of Corporate Information Infrastructures*. Oxford: Oxford University Press.
- Law, J., and Hassard, J. (1999) (eds.). *Actor Network and After*. Oxford: Blackwell.

Notes

1. In this volume, ANT is also discussed in Monteiro (Chapter 7), Kallinikos (Chapter 8), and Smithson and Tsiavos (Chapter 11).
2. I would like to thank John Tresch for his help in correcting the use of English in the dialogue.