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Reassembling the Social

An Introduction to Actor-Network-Theory

Bruno Latour

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To anguish over the potential efficacy of sociological texts is to show lack of modesty or lack of ambition. If anything, the success of social sciences in spreading through the social world is even more astounding than the expansion of the natural sciences and technological devices. Can we overestimate the changes achieved in the way every one of us is now 'having a gender' that has been brought about by the tiny texts of feminist scholars? What would we know about the 'Other' without anthropologists' accounts? Who could size up one's past without archaeologists and historians? Who would be able to navigate without the geographers? Who would have an unconscious without the psychologists? Who would know whether or not a profit is made without the accountants? To be sure, texts look like miserable pathways to move between the many contradictory frames of reference, and yet their efficacy is unmatched by the more grandiose and powerful social explanations that are proposed to humiliate them. It is not because the sociologist cannot occupy the place of the all-encompassing and all-seeing God of social science that he or she has to be imprisoned blind in a cellar. We, the little ants, should not settle for heaven or hell, as there are plenty of things on this earth to munch our way through.

On the Difficulty of Being an ANT: An Interlude in the Form of a Dialog

An office at the London School of Economics on a dark Tuesday afternoon in February before moving upstairs to the *Beaver* for a pint. A quiet but insistent knock is heard. A student peers into the office.¹⁹⁸

Student: Am I bothering you?

Professor: Not at all. These are my office hours. 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 study on organizations.

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 useless?

P: It might be useful, but only if it does not 'apply' to something.

S: Sorry, but are you playing some sort of Zen trick here? I have to warn you that I'm just a straight Organization Studies doctoral student, so don't expect... I'm not too much into French stuff either, just read a bit of *Thousand Plateaus* but couldn't make much sense of it...

P: 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, hardware, 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

¹⁹⁸ A version of this dialog has appeared in *The Social Study of Information and Communication Technology*, edited by C. Avgerou, C. Ciborra, and E.F. Land, Oxford University Press, 2004, pp. 62-76.

looked completely incommensurable if you had followed normal procedures.' That's all. ANT can't tell you positively what the link is.

S: So why is it called a 'theory' if it says nothing about the things we study?

P: It's a theory, and a strong one I think, but 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: In a way, yes, and because of their very strengths: they are good at saying *substantive* things about what the social world is made of. In most cases that's fine; the ingredients are known; their repertoire should be kept short. But that doesn't work when things are changing fast. Nor is it good for organization studies, information studies, marketing, science and technology studies or management studies, where boundaries are so terribly fuzzy. New topics, that's what you need ANT for.

S: But my agents, I mean the people I am studying at the company, they form a lot of 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 to say that. Any available social theory would do. It's a waste of time for you to pick such an outlandish argument simply to show that your informants are 'forming 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 boardrooms, everything. Haven't I described a network in your sense?

P: Not necessarily. I agree this is terribly confusing, and it's largely our fault—the word we invented is a pretty horrible one. But you should not confuse the network that is drawn by the description and the network that is used to make the description.

S: Come again?

P: 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—an individual state of mind, a piece of machinery, a fictional character; conversely, you may describe a network—subways, sewages, telephones—which is not all drawn in an 'Actor-Network' 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! But my company executives, are they not forming a nice, revealing, powerful network?

P: Maybe, I mean, surely they are—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 yourself* allow your actors (or rather, your actants) to do. Being connected, being interconnected, or 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'. Really, we should say 'work-net' instead of 'network'. It's the work, and the movement, and the flow, and the changes that should be stressed. But now we are stuck with 'network' and everyone thinks we mean the World Wide Web or something like that.

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 a specific shape 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 modify the goals you had in mind. That's what 'actor' means. Actor Network (I agree the name is silly) allows you to produce some *effects* that you would not have obtained by some other social theory. That's all that I can vouch for. It's a very common experience. Just try to draw with a lead pencil or with charcoal, you will feel the difference; and 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: 'Student, you need a framework.'

P: Maybe your supervisor is in the business of selling pictures! It's true that frames are nice for showing: gilded, white, carved, baroque, aluminum, etc. But have you ever met a painter who began his 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 that is the special case or Y which is the rule?

S: Probably Y... but X too, just to see if it's 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, well, it 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 never understood what context meant, no. A frame makes a picture look nicer, it may direct the gaze better, increase the value, allows to date it, but it doesn't add anything to the picture. The frame, or the context, is precisely the sum of factors that make no difference to the data, what is common knowledge about it. If I were you, I would abstain from frameworks altogether. Just describe the state of affairs at hand.

S: 'Just describe'. Sorry to ask, but is this not terribly naive? Is this not exactly the sort of empiricism, or realism, that we have been warned against? I thought your argument was, um, 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 and arguments, there is only one of description. To describe, to be attentive to the concrete state of affairs, to find the uniquely adequate account of a given situation, I myself have always found this incredibly demanding.

S: I have to say that I'm lost here. We have been taught that there are two types of sociology, the interpretative 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. Surely you are for interpretative sociology, for viewpoints, multiplicity of standpoints and all that.

P: I have no real sympathy for interpretative sociologies. No. On the contrary, I firmly believe that sciences are objective—what else could they be? They're all about objects, no? What I have said is simply that objects might look a bit more complicated, folded, multiple, complex, and entangled than what the 'objectivist', as you say, would like them to be.

S: But that's exactly what 'interpretative' sociologies argue, no?

P: Oh no, not at 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', of 'strictly material connections'. That's not at all what I am saying. I would say that this computer here on my desk, this screen, this keyboard are objects made of multiple layers, exactly as much as you sitting here are: your body, your language, your worries. It's the object itself that adds multiplicity, or rather the thing, the 'gathering'. When you speak of hermeneutics, no matter which precaution you take, you always expect the second shoe to drop: someone inevitably will add:

'But of course there *also* exists "natural", "objective" things that are "not" interpreted'.

S: That's just what 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 the inevitable trap: 'Not only... but also'. Either you extend the argument to everything, but then it becomes useless—'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 considered richer or poorer; it's out of reach anyway.

S: But you wouldn't deny that you also possess a standpoint, that ANT is situated as well, that you also add another layer of interpretation, a perspective?

P: No, why would I 'deny' it? But so what? The great thing about a standpoint is that you can stand on it and modify it! Why would I be 'stuck with' it? From where they are on earth, astronomers have a limited perspective. Take for instance Greenwich, the Observatory down the river from here. Have you been there? It's a beautiful place. 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 'interpretative' 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: Of course you are! But what makes you think that 'having a viewpoint' means 'being limited' or especially 'subjective'? When you travel abroad and you follow the sign 'Belvedere 1.5 km', 'Panorama', 'Bella vista', when you finally reach the breath-taking site, in what way is this proof of your 'subjective limits'? It's the thing itself, the valley, the peaks, the roads, that offer you this grasp, this handle, this take. The best proof is that, two meters lower, you see nothing because of the trees and two meters higher, you see nothing because of a parking lot. And yet you have the same limited 'subjectivity' and you transport with you exactly the very same 'standpoint'! If you can have many points of views on a statue, it's because the statue itself is in three-dimensions and allows you, yes, *allows* you to move around it. If something supports many viewpoints, it's just that it's highly

complex, intricately folded, nicely organized, and beautiful, yes, *objectively* beautiful.

S: But certainly nothing is objectively beautiful—beauty has to be subjective... taste and color, relative... I am lost again. Why would we spend so much time in this school fighting objectivism then? What you say can't be right.

P: Because the things people call 'objective' are most of the time the clichés of matters of facts. We don't have a very good description of anything: of what a computer, a piece of software, a formal system, a theorem, a company, a market is. We know next to nothing of what this thing you're studying, an *organization*, is. How would we be able to distinguish it from human emotions? So, there are two ways to criticize objectivity: one is by going *away* from the object to the subjective human viewpoint. But the other direction is the one I am talking about: back to the object. Positivists don't *own* objectivity. A computer described by Alan Turing is quite a bit richer and more interesting than the ones described by *Wired* magazine, no? As we saw in class yesterday, a soap factory described by Richard Powers in *Gain* is much livelier than what you read in Harvard case studies. 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 crap 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 God's sake: that's called relativity.

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 of reference to the next, from one standpoint to the next. Without those displacements, I would be limited to my own narrow point of view for good.

S: So you associate objectivity with relativism?

P: 'Relativity', yes, of course. All the sciences do the same. Our sciences do it as well.

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, survey, fieldwork, archives, polls, whatever—we go, we listen, we learn, we practice, we become competent, we change our views. Very simple really: it's called inquiries. Good inquiries always produce a lot of new 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. What is meant by a 'social explanation' most of the time? Adding another actor to provide those already described with 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 of an explanation. But I have read countless bad descriptions to which nothing was added by a massive addition of 'explanations'. And ANT did not help.

S: This is very distressing. I should have known—the other students warned me not to touch ANT stuff even with a long pole. Now you are telling me that I shouldn't even try to explain anything!

P: I did not say that. I simply said that either your explanation is relevant and, in practice, this means you are adding a new agent to the description—the network is simply longer than you thought—or it's not an actor that makes any difference and you are merely adding something irrelevant which helps neither the description nor the explanation. In that case, throw it away.

S: But all my colleagues use them. They talk about 'IBM corporate culture', 'British isolationism', 'market pressure', 'self-interest'. Why should I deprive myself of those contextual explanations?

P: You can keep them as shorthand or to quickly fill in the parts of your picture that make no difference to you, but don't believe they explain anything. At best they apply equally to all your actors, which means they are probably superfluous since they are unable to introduce a difference among them. At worst, they drown all the new interesting actors in a deluvium of older ones. Deploy the content with all its connections and you will have the context in addition.

As Rem Koolhaas said, 'context stinks'. It's simply a way of stopping the description when you are tired or too lazy to go on.

S: But that's exactly my problem: to stop. I have to complete this doctorate. I have just eight more months. You always say 'more descriptions' but this is like Freud and his cures: 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 just by 'adding an explanation' or 'putting it into a frame'.

S: Tell me it then.

P: You stop when you have written your 50,000 words or whatever is the format here, I always forget.

S: Oh! That's really great. So my thesis is finished when it's completed. So helpful, really, many thanks. I feel so relieved now.

P: Glad you like it! No seriously, don't you agree that any method depends on the size and type of texts you promised to deliver?

S: But that's a *textual* limit, it has nothing to do with method.

P: See? That's again why I dislike the way doctoral students are trained. Writing texts has *everything* to do with method. You write a text of so many words, in so many months, based on so many interviews, so many hours of observation, so many documents. That's all. You do nothing more.

S: But I do more than that. I learn, I study, I explain, I criticize, I...

P: But all those grandiose 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 C and even C ++, but I don't do Derrida, semiotics, any of it. I don't believe the world is made of words and all of that...

P: Don't try to be sarcastic. It doesn't suit the engineer in you. And anyway I don't believe that either. You ask me how to stop and I am just telling you that the best you will be able to do, as a PhD student, is to *add* a text—which will have been read by your advisors, maybe a few of your informants, and 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 in the last chapter of your damn thesis.

S: I have been trained in the sciences! I am a systems engineer—I am not coming to Organization Studies to abandon that. I am willing to add flow charts, institutions, people, mythologies, and psychology to what I already know. I am even prepared to be 'symmetric' as you teach

us 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 completely objectivist, perhaps even a naive realist—'just describe'—and the other you are completely relativist—'tell some nice stories and run'. Is this not so terribly French?

P: And that would make you so terribly what? Don't be silly. Who talked about 'nice stories'? Not me. I said you were *writing* a PhD thesis. Can you deny that? And then I said that this so-many-words-long PhD 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 windowpane, transporting without deformation some information about your study. 'There is no information, only trans-information.' I assume that you agree with this ANT slogan? Well, then this is surely also true of your PhD thesis, no?

S: Maybe, but in what sense does it help me to 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. Rather, it's the functional equivalent of a laboratory. It's a place for trials, experiments, and simulations. 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—and every single new topic requires a new way to be handled by a text. Most texts are just plain dead. Nothing happens in them.

S: But no one mentions 'text' in our program. We talk about 'studying the organization, not 'writing' about it.

P: That's what I am telling you: you are being badly trained! Not teaching social science doctoral students to *write* their PhDs is like not teaching chemists to do laboratory experiments. That's why I am teaching nothing but writing nowadays. I keep repeating the same mantra: 'describe, write, describe, write.'

S: The problem is that's not what my supervisor wants! He wants my case studies to 'lead to some useful generalization'. 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? 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 would act like a bunch of morons? What they do to expand, to relate, to compare, to organize 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 *go on with* the description. What your own ideas are about your company is of no interest whatsoever compared to how this bit of the company itself has managed to spread.

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. So you will have no information at all. So you will have nothing to say.

S: You mean when there is no trace I should remain silent?

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 some of our colleagues. No trace left, thus no information, thus no description, then no talk. *Don't fill it in*. It's like a map of a country in the 16th century: no one went there or no one came back, so for God's sake, leave it blank! *Terra incognita*.

S: But what about invisible entities acting in some hidden ways?

P: If they act, they leave some trace. And then you will have some information, then you can talk about them. If not, just shut up.

S: But what 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, far-fetched, complicated, but you need it. Invisible things are invisible. Period. If they make other things move, and you can document those moves, then they are visible.

S: Proof? What is a proof anyway? 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 most of critical 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?

S: But I have to make the actors learn 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 are the teachers, you learn from them. You explain what they do to you for your own benefit, or for that of other entomologists, not for them, who don't care one bit. What makes you think that a study is always 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 at the school: to criticize the ideology of management, to debunk the many myths of information technology, to gain a critical edge over all the technical hype, the ideology of the market. If not, believe me, I would still be in Silicon Valley, and I would be making a lot more money—well, maybe not now, since the bubble burst ... But anyway, I have to provide some reflexive understanding to the people ...

P: ... Who of course were not reflexive before you came to honor them with your study!

S: In a way, yes. I mean, no. They did things but did not know why ... What's wrong with that?

P: What's wrong is that it's so terribly cheap. Most of what social scientists call 'reflexivity' is just a way of asking totally irrelevant questions to people who ask other questions for which the analyst does not have the slightest 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, in case you don't know, 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 naive realist—back to the object—and the next you say that you just write a text that adds nothing but simply trails behind your proverbial '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 this.

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 one.

P: And I am glad it doesn't. I assume this framework of yours is hidden to the eyes of your informants and revealed by your study?

S: Yes, of course. That should be the added value of my work, not the description since everyone already knows that. But the explanation,

the context, that's something they have no time to see, the typology. You see, they are too busy to think. That's what I can deliver. By the way, I have not told you yet, at the company, they are ready to give me access to their files.

P: Excellent, at least they are interested in what you do. It's a good beginning. But you are not claiming that in your six months of fieldwork, you can by yourself, just by writing a few hundred pages, produce more knowledge than those 340 engineers and staff that you have been studying?

S: Not 'more' knowledge but different. Yes, I hope I can. 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 from theirs, that's the big 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, I can generate the effect as a consequence. What's wrong with that? It's like asking what will happen to a pendulum that has been moved far from the 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, naturally.

P: Naturally! 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, though less precisely scientific. 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 pendulum's state of affairs. The concrete case is simply, to speak like a philosopher, the 'realization of a potential' that was already there.

S: Isn't that an ideal explanation?

P: That's just the problem. It's an ideal squared: the ideal of an ideal explanation. I doubt somewhat that your company's subsidiary believes that way. And I am pretty confident that you can't produce the law of its behavior 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. Your modesty is admirable.

S: Are you making fun of me here? Striving for that sort of framework seems feasible to me.

P: But even it were, would it be 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, my dear Student, 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 has been simply wasted. You should have gone directly to the cause.

S: But that's what a science is for! Just that: finding the hidden structure that explains the behavior of those agents you thought were doing something but in fact are simply placeholders for something else.

P: So you are a structuralist! You've finally come out of the closet. Placeholders, isn't that 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 placeholder does in a structuralist explanation?

S: That's easy, it fulfills a function. This is what is so great about structuralism, if I have understood it correctly. Any other agent in the same position would be forced to do the same.

P: So a placeholder, by definition, is entirely *substitutable* by any other?

S: Yes, that's what I am saying.

P: But that's also what is so implausible and what makes it radically incompatible with ANT. In my vocabulary, an actor that makes no difference is not an actor at all. An actor, if words have any meaning, is exactly what is *not* substitutable. It's a unique event, totally irreducible to any other, except, that is, if you render one commensurable with another one by some process 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 thing, any science...

P: No! Organization Studies, Science and Technology Studies, Business Studies, Information Studies, Sociology, Geography, Anthropology, whatever the field, they cannot rely, by definition, on any structuralist explanation since information is transformation.

S: 'Systems of transformations', that's exactly what structuralism is about!

P: No way, my friend, since in structuralism nothing is really transformed, it's simply *combined*. You don't seem to fathom the abyss that

exists between it and ANT. A structure is just a network on which you have only very sketchy information. It's useful when you are pressed for time, but don't tell me it's more scientific. If I want to have actors in my account, they have to *do* things, not to be placeholders; 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 object.

S: You and your stories. Eventful stories, that's what you want! I am talking about explanation, knowledge, critical edge, not writing scripts for soap operas on Channel 4!

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 you would agree that it wouldn't do to provide them with an irrelevant appeal to causes that make no difference to what they do because they are too general?

S: Of course not. I was talking about *real* causalities.

P: But those won't do either because if they existed, which I doubt very much they do, they would have no other effect than transforming your informants into the placeholders of other actors, which you call function, structure, grammar, etc. In effect, they wouldn't be actors anymore but dopes, puppets—and even that would be quite unfair to puppets. Anyway, you are making actors out to be nothing: at best they could add some minor perturbations like the concrete pendulum that only adds slight wobbles.

S: Huh?

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

S: Hmm, you have a way of turning things upside down. Now I am not so sure. If actors become aware of what is imposed on them, if they become more conscious, more reflexive, then is their consciousness not raised somewhat? They can now take their fate into their own hands. They become more enlightened, no? If so, I would say that now, and in part thanks to me, they are more active now, more complete actors.

P: *Bravo, bravissimo!* So an actor for you is some fully determined agent, plus a placeholder for a function, plus a bit of perturbation, plus some consciousness provided by enlightened social scientists? Horrible, simply horrible. And you want to apply ANT to these people! After you have reduced them from actors to placeholders, you want to

add insult to injury and generously bring to those poor blokes the reflexivity they had before and that you have taken away 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, Student! Bourdieu could not have done better.

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

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

S: I have learned not to be intimidated by arguments of authority, so your thirty years of study 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 thus are not actors at all, or you describe actors who are rendering virtualities actual (this is Deleuze's parlance by the way) and which require very specific texts. Your connection with those 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 a rare event. It requires an incredibly imaginative protocol. It requires something as miraculous as Galileo with his pendulum or Pasteur with his rabies virus.

S: So what should I do? Pray for a miracle? Sacrifice a chicken?

P: But why do you want your tiny little text to be automatically more relevant to those who might be concerned by it (or not) than say a huge laboratory of natural sciences? Look at how much it takes for Intel® chips to become 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 an argument is automatic, across the board, all-purpose, then it can't possibly be scientific. It's simply irrelevant. If a study is really scientific, then it could have failed.

S: Great reassurance, nice of you to remind me that I can fail my thesis!

P: You are confusing science with mastery. 'Being able to lose the phenomenon is essential to scientific practice.'¹⁹⁹ Tell me, can you imagine one single topic to which 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!

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 was thinking of using Luhmann's system theory as an underlying framework—that seems to hold a lot of promise, 'autopoiesis' and all that. Or maybe I will use a bit of both.

P: Hmmm . . .

S: Don't you like Luhmann?

P: I would leave aside all 'underlying frameworks' if I were you.

S: But your sort of 'science', from what I see, 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 naive realist, a positivist.

S: You know what would be real nice? Since no one around here seems to understand what ANT is, you should write an introduction to it. That would ensure our teachers know what it is and then, if I may say without being rude, they might not try to push us too hard into it, if you see what I mean . . .

P: So it's really that bad?

S: See, I'm just a PhD student, but you're a professor. You have published a lot. 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? Why try to use ANT?

S: For the last half hour, I have to confess, I've been wondering the same thing . . .

¹⁹⁹ See Garfinkel, *Ethnomethodology's Program*, p. 264.

PART II

How to Render Associations Traceable Again