

Third Source of Uncertainty: Objects too Have Agency

If sociology has been marked from the start by the discovery that action was overtaken by other agencies, it has been spurred even more forcefully by the ethical, political, and empirical discovery that there exist hierarchies, asymmetries, and inequalities; that the social world is just as differentiated a landscape as a rugged and mountainous terrain; that no amount of enthusiasm, free will, or ingenuity can make those asymmetries go away; that they all seem to weigh as heavily as the pyramids, which hampers individual action and explains why society should be considered as a specific *sui generis* entity; that any thinker who denies those inequalities and differences is either gullible or somewhat reactionary; and, finally, that ignoring social asymmetry is as ridiculous as claiming that Newtonian gravitation does not exist.

How could we be faithful to this intuition and still maintain, as I just did with the first two sources of uncertainty, that groups are ‘constantly’ being performed and that agencies are ‘ceaselessly’ debated? Has the choice of those two departure points not been inspired by a naive attitude that has smoothed the highly unequal social domain into a level playing field where everyone, it seems, has the same chance to generate one’s own metaphysics? Is ANT not one of the symptoms of this market spirit that claims, against all evidence, that everyone has the same chance—and too bad for the losers?⁶⁹ ‘What have you done’, people could ask in exasperation, ‘with power and domination?’ But it is just because we wish to *explain* those asymmetries that we don’t want to simply *repeat* them—and even less to *transport* them further unmodified. Once again, we don’t want to confuse the cause and the effect, the *explanandum* with the *explanans*. This is

⁶⁹ In Luc Boltanski and Eve Chiapello (2005), *The New Spirit of Capitalism*, the authors have made quite explicit this critique of ANT as does the scathing attack in Philip Mirowski and Edward Nik-Khah (2004), ‘Markets Made Flesh: Callon, Performativity, and a Crisis in Science Studies, augmented With Consideration of the FCC auctions’. We will have to wait until the Conclusion to tackle again the question of political relevance and answer those critiques.

why it's so important to maintain that power, like society, is the final result of a process and not a reservoir, a stock, or a capital that will automatically provide an explanation. Power and domination have to be produced, made up, composed.⁷⁰ Asymmetries exist, yes, but where do they come from and what are they made out of?

To provide an explanation, sociologists of associations must make the same radical decision as when they wanted to feed off the second source of uncertainty. It is *because* they wanted to keep the original intuition of social sciences that they had to adamantly *reject* the impossible solution that was proposed, namely that society is unequal and hierarchical; that it weighs disproportionably on some parts; and that it has all the character of inertia. To state that domination breaks down bodies and souls is one thing whereas concluding that these hierarchies, dissymmetry, inertia, powers, and cruelties are made *of* social stuff is a different argument altogether. Not only the second point has no logical continuity with the first, but it is also, as we shall see, in complete contradiction with it. In the same way as the overtaking of action by other agencies does not mean that society is taking over, the flagrant asymmetry of resources does not mean that they are generated by social asymmetries. It just leads to the opposite conclusion: if inequalities have to be generated, this is proof that other types of actors than the social ones are coming into play. As Marx did with Hegel's dialectics, it's time we put social explanation back on its feet.

The type of actors at work should be increased

So far, I have insisted mostly on the difference between 'social' as in 'social ties' and 'social' as in 'associations'—bearing in mind that the second meaning is closer to the original etymology. I have argued that most often in social sciences, 'social' designates a type of link: it's taken as the name of a specific domain, a sort of material like straw, mud, string, wood, or steel. In principle, you could walk into some imaginary supermarket and point at a shelf full of 'social ties', whereas other aisles would be stocked with 'material', 'biological', 'psychological', and 'economical' connections. For ANT, as we now understand, the definition of the term is different: it doesn't designate a domain of reality or some particular item, but rather is the name of a movement, a displacement, a transformation, a translation, an

⁷⁰ See John Law (1986a), 'On Power And Its Tactics: A View From The Sociology Of Science' and John Law (1992), *A Sociology of Monsters. Essays on Power, Technology and Domination*.

enrollment. It is an association between entities which are in no way recognizable as being social in the ordinary manner, *except* during the brief moment when they are reshuffled together. To pursue the metaphor of the supermarket, we would call 'social' not any specific shelf or aisle, but the multiple modifications made throughout the whole place in the organization of all the goods—their packaging, their pricing, their labeling—because those minute shifts reveal to the observer which new combinations are explored and which paths will be taken (what later will be defined as a 'network').⁷¹ Thus, social, for ANT, is the name of a type of momentary association which is characterized by the way it gathers together into new shapes.⁷²

Once this second meaning of social as association is in place, we can understand what was so confusing about the sociologists of the social. They use the adjective to designate two entirely different types of phenomena: one of them is the local, face-to-face, naked, unequipped, and dynamic interactions; and the other is a sort of specific force that is supposed to explain why those same temporary face-to-face interactions could become far-reaching and durable. While it's perfectly reasonable to designate by 'social' the ubiquitous phenomenon of face-to-face relations, it cannot provide any ground for defining a 'social' force that is nothing more than a tautology, a sleight of hand, a magical invocation, since it begs the question of how and through which means this increase in durability has been practically achieved. To jump from the recognition of interactions to the existence of a social force is, once again, an inference that does not follow from the premise.

This distinction is especially crucial since what could be called the basic social skills are actually difficult to isolate in human societies. As we will see in Part II when criticizing the notion of 'local interactions', it's mostly in non-human societies (ants, monkeys, and apes) that it's possible to generate a social world understood as an entanglement of interactions. In humans, the basic social skills, although still present, offer an ever-present but nonetheless restricted repertoire. Most of the far-reaching and long-lasting associations are made by something else that could not be detected as long as the notion of social force was not submitted to scrutiny. With ANT, one needs to place the first definition within a very limited sphere and do away with the second, apart from using it as a kind of shorthand to describe what has been already

⁷¹ On this notion of adjustment, see Franck Cochoy (2002), *Une sociologie du packaging ou l'âne de Buridan face au marché*.

⁷² The term 'fluid' was introduced in Annemarie Mol and John Law (1994), 'Regions, Networks, and Fluids: Anaemia and Social Topology'—but see also Zygmunt Bauman (2000), *Liquid Modernity*. The word 'fluid' allows analysts to insist better than if they used the word network on the circulation and on the nature of what is being transported.

assembled together.⁷³ In summary, no tie can be said to be durable and made of social stuff.

The main advantage of dissolving the notion of social force and replacing it either by short-lived interactions or by new associations is that it's now possible to distinguish in the composite notion of society what pertains to its durability and what pertains to its substance.⁷⁴ Yes, there may exist durable ties, but this does not count as proof that they are made of social material—quite the opposite. It's now possible to bring into the foreground the practical means to keep ties in place, the ingenuity constantly invested in enrolling other sources of ties, and the cost to be paid for the extension of any interaction.

If we consider the basic social skills, it's easy to understand that the connections they are able to weave are always too weak to sustain the sort of weight that social theorists would like to grant to their definition of social. Left to its own devices, a power relationship that mobilizes nothing but social skills would be limited to very short-lived, transient interactions. But where has this situation ever been observed? Even baboon troops, although they are closest to the ideal world invented by many social theorists, cannot provide such an extreme case. As Hobbes and Rousseau have remarked long ago, no giant is strong enough not to be easily overcome in his sleep by a dwarf; no coalition is solid enough not to be run over by an even larger coalition. When power is exerted for good, it is because it is not made of social ties; when it has to rely only on social ties, it is not exerted for long. So, when social scientists appeal to 'social ties' they should always mean something that has great trouble spreading in time and space, that has no inertia and is to be ceaselessly renegotiated. It's precisely because it's so difficult to maintain asymmetries, to durably entrench power relations, to enforce inequalities, that so much work is being constantly devoted in shifting the weak and fast-decaying ties to *other types* of links. If the social world was made of local interactions, it will retain a sort of provisional, unstable, and chaotic aspect and never this strongly differentiated landscape that the appeals to power and domination purport to explain.

As soon as the distinction between the basic social skills and the non-social means mobilized to expand them a bit longer is not carefully kept, analysts run the risk of believing that it's the invocation of

⁷³ For an early presentation of this argument, see Strum and Latour, 'The Meanings of Social'.

⁷⁴ In the complex notion of nature, I have been able to distinguish its outside reality from its unity: the two did not go together in spite of so much philosophy (see Latour, *Politics of Nature*). The same is true of society: durability does not point to its materiality, only to its movement.

social forces that will provide an explanation. Sociologists will claim that when they appeal to the durability of social ties they bring in something that really possesses the necessary durability, solidity, and inertia. It is 'society', or 'social norm', or 'social laws', or 'structures', or 'social customs', or 'culture', or 'rules', etc., they argue, which have enough steel in them to account for the way it exerts its grip over all of us and accounts for the unequal landscape in which we are toiling. It is, indeed, a convenient solution but does not explain where their 'steely' quality is coming from that reinforces the weak connections of social skills. And sociologists, in a careless move, might take a wrong turn and say that durability, solidity, and inertia are provided by the durability, solidity, and inertia of society itself. They might go even further and take this tautology not for the starkest of contradictions, but from what should be admired most in the miraculous force of a society that is, as they say, *sui generis*, by which they mean that it is generated out of itself.⁷⁵

Even if this way of talking is innocuous enough when taken as some shorthand to describe what is already bundled together, the consequences of such an argument are disastrous. The temptation is too strong to act as if there now existed some formidable force that could provide all the short-lived asymmetries with the durability and expansion that social skills could not manage to produce by their own impetus. At which point the causes and effects would be inverted and the practical means for making the social hold would vanish from view. What had begun as a mere confusion of adjectives has become a wholly different project: to this base world has been added a world which is just as intractable as the heaven of ancient Christian theology—except it does not offer any hope of redemption.

Are sociologists of the social so foolish that they are unable to detect such a tautology in their reasoning? Are they really stuck in the mythical belief of another world behind the real world? Do they really believe in this strange bootstrapping of a society born out of itself?⁷⁶ Of course not, since they never really use it in practice and so are never confronted by the contradiction inherent in the notion of a 'self-production' of society. The reason why they never draw the logical conclusion that their argument is contradictory is that they use it somewhat more loosely. When they invoke the durability of some social aggregates they always, wittingly or unwittingly, lend to the

⁷⁵ Cornelius Castoriadis (1998), *The Imaginary Institution of Society* extends the fallacy even further, considering this tautology itself as the imaginary foundation of society. But once this foundation is accepted, there is no longer any way to detect the composition of the social.

⁷⁶ Bootstrapping is taken as one characteristic of the social itself. See Barry Barnes (1983), 'Social Life as Bootstrapped Induction'.

weak social ties the heavy load coming from the masses of other non-social things. It is always things—and I now mean this last word literally—which, in practice, lend their ‘steely’ quality to the hapless ‘society’. So, in effect, what sociologists mean by the ‘power of society’ is not society itself—that would be magical indeed—but some sort of summary for all the entities already mobilized to render asymmetries longer lasting.⁷⁷ This use of a shorthand is not tautological, but it is dangerously misleading since there is no empirical way to decide how all that stuff has been mobilized any longer—and worst of all, there is no way to know if such a load is still active. The idea of a society has become in the hands of later-day ‘social explainers’ like a big container ship which no inspector is permitted to board and which allows social scientists to smuggle goods across national borders without having to submit to public inspection. Is the cargo empty or full, healthy or rotten, innocuous or deadly, newly made or long disused? It has become anyone’s guess, much like the presence of weapons of mass destruction in Saddam Hussein’s Iraq.

ANT’s solution is not to engage in polemics against sociologists of the social, but simply to multiply the occasions to quickly detect the contradiction in which they might have fallen into. This is the only way to gently force sociologists again to trace the non-social means mobilized whenever they invoke the power of social explanations.⁷⁸ What ANT does is that it keeps asking the following question: Since every sociologist loads things into social ties to give them enough weight to account for their durability and extension, why not do this explicitly instead of doing it on the sly? Its slogan, ‘Follow the actors’, becomes, ‘Follow the actors in their weaving through things they have added to social skills so as to render more durable the constantly shifting interactions.’

It’s at this point that the real contrast between sociology of associations and sociology of *the social* will be most clearly visible. So far, I might have exaggerated the differences between the two viewpoints. After all, many schools of social science might accept the two first uncertainties as their departure point (especially anthropology, which is another name for empirical metaphysics), and of course ethnomethodology. Even adding controversies does not radically alter the type of phenomena they might want to study, only the difficulties of

⁷⁷ In Part II, we will discover that this tautology is the hidden presence of the Body Politic: the paradoxical relation of the citizen with the Republic has fully contaminated the entirely different relation of actor and system—see p. 161.

⁷⁸ Important in organization studies is the fact that whenever the big animal is implied tautologically, look for accounts, documents, and the circulation of forms. See Barbara Czarniawska (1997), *A Narrative Approach To Organization Studies*; Cooren, James R. Taylor (1993), *Rethinking the Theory of Organizational Communication: How to Read an Organization*.

listing them. But now the gap is going to be considerably enlarged, because we are not going to limit in advance to one small repertoire only that which is needed for actors to generate social asymmetries. Instead, we are going to accept as full-blown actors entities that were explicitly *excluded* from collective existence by more than one hundred years of social explanation. The reasons are twofold: first, because the basic social skills provide only one tiny subset of the associations making up societies; second, because the supplement of force which seems to reside in the invocation of a social tie is, at best, a convenient shorthand and, at worst, nothing more than a tautology.

Shirley Strum's baboons

To understand the link between the basic social skills and the notion of society, a detour through the study of apes and monkeys is required. In recalling the first meeting on baboon studies that she organized in 1978 in a castle near New York City, Shirley Strum (1987: 157–58) wrote:

'Still, I knew my work painted a picture of baboon societies that others would find difficult to accept. My shocking discovery was that males had no dominance hierarchy; that baboons possessed social strategies; that finesse triumphed over force; that social skill and social reciprocity took precedence over aggression. This was the beginning of sexual politics, where males and females exchanged favors in return for other favors. It appeared that baboons had to work hard to create their social world, but the way in which they created it made them seem "nicer" than people. They needed one another in order to survive at the most basic level—the protection and advantage that group living offered the individual—and also at the most sophisticated level, one marked by social strategies of competition and defense. They also seemed "nice" because, unlike humans, no member of Pumphouse [the name of the troop] possessed the ability to control essential resources: each baboon got its own food, water and place in the shade, and took care of its own basic survival needs. Aggression could be used for coercion, but aggression was a roped tiger. Grooming, being close, social goodwill and cooperation were the only assets available for barter or to use as leverage over another baboon. And these were all aspects of "niceness", affiliation not aggression. Baboons were "nice" to one another because such behavior was as critical to their survival as air to breathe and food to eat. What I had discovered was a revolutionary new picture of baboon society. Revolutionary, in fact, for *any* animal society as yet described. The implications were breathtaking. I was arguing that aggression was not as pervasive or important an influence in evolution as had been thought, and that social strategies and social reciprocity were extremely important. If baboons possessed these, certainly, the precursors of our early human ancestors must have had them as well.'

If sociologists had the privilege to watch more carefully baboons repairing their constantly decaying ‘social structure’, they would have witnessed what incredible cost has been paid when the job is to maintain, for instance, social dominance with no *thing* at all, just social skills. They would have documented empirically the price to pay for the tautology of social ties made out of social ties.⁷⁹ It’s the power exerted through entities that don’t sleep and associations that don’t break down that allow power to last longer and expand further—and, to achieve such a feat, many more materials than social compacts have to be devised. This does not mean that the sociology of the social is useless, only that it might be excellent for studying baboons but not for studying humans.

Making objects participants in the course of action

The contrast between the two schools cannot be made more dramatic. As soon as you start to have doubts about the ability of social ties to durably expand, a plausible role for objects might be on offer.⁸⁰ As soon as you believe social aggregates can hold their own being propped up by ‘social forces’, then objects vanish from view and the magical and tautological force of society is enough to hold *every thing* with, literally, *no thing*. It’s hard to imagine a more striking foreground/background reversal, a more radical paradigm shift. This is of course the reason why ANT first attracted attention.⁸¹

Social action is not only taken over by aliens, it is also shifted or delegated to different types of actors which are able to transport the action further through other modes of action, other types of forces altogether.⁸² At first, bringing objects back into the normal course of

⁷⁹ See Hans Kummer (1995), *In Quest of the Sacred Baboon* for the key notion of ‘social tools’ about Hamadryas baboons.

⁸⁰ The word object will be used as a placeholder until the next chapter where it will be defined as a ‘matter of concern’. There is no way to speed things up since ANT is defined in this book by laying out the five sources of uncertainty in succession.

⁸¹ It cannot be understood apart from the two other uncertainties about groups and about action. Without them, ANT is immediately reduced to a rather silly argument about the causal agency of technical objects, that is, a clear return to technical determinism.

⁸² For the word delegation to hold, the ANT theory of action, that is, how someone makes another do things, has to be kept in mind. If such a dislocation is missed, delegation becomes another causal relation and a resurrection of a *Homo faber* fully in command of what he—it’s almost always a ‘he’—does with tools.

action should appear innocuous enough. After all, there is hardly any doubt that kettles 'boil' water, knives 'cut' meat, baskets 'hold' provisions, hammers 'hit' nails on the head, rails 'keep' kids from falling, locks 'close' rooms against uninvited visitors, soap 'takes' the dirt away, schedules 'list' class sessions, prize tags 'help' people calculating, and so on. Are those verbs not designating actions? How could the introduction of those humble, mundane, and ubiquitous activities bring any news to any social scientist?

And yet they do. The main reason why objects had no chance to play any role before was not only due to the definition of the social used by sociologists, but also to the very definition of actors and agencies most often chosen. If action is limited a priori to what 'intentional', 'meaningful' humans do, it is hard to see how a hammer, a basket, a door closer, a cat, a rug, a mug, a list, or a tag could act. They might exist in the domain of 'material' 'causal' relations, but not in the 'reflexive' 'symbolic' domain of social relations. By contrast, if we stick to our decision to start from the controversies about actors and agencies, then *any thing* that does modify a state of affairs by making a difference is an actor—or, if it has no figuration yet, an actant. Thus, the questions to ask about any agent are simply the following: Does it make a difference in the course of some other agent's action or not? Is there some trial that allows someone to detect this difference?

The rather common sense answer should be a resounding 'yes'. If you can, with a straight face, maintain that hitting a nail with and without a hammer, boiling water with and without a kettle, fetching provisions with or without a basket, walking in the street with or without clothes, zapping a TV with or without a remote, slowing down a car with or without a speed-bump, keeping track of your inventory with or without a list, running a company with or without bookkeeping, are exactly the same activities, that the introduction of these mundane implements change 'nothing important' to the realization of the tasks, then you are ready to transmigrate to the Far Land of the Social and disappear from this lowly one. For all the other members of society, it does make a difference under trials and so these implements, according to our definition, are actors, or more precisely, *participants* in the course of action waiting to be given a figuration.

This, of course, does not mean that these participants 'determine' the action, that baskets 'cause' the fetching of provisions or that hammers 'impose' the hitting of the nail. Such a reversal in the direction of influence would be simply a way to transform objects into the

causes whose effects would be transported through human action now limited to a trail of mere intermediaries. Rather, it means that there might exist many metaphysical shades between full causality and sheer inexistence. In addition to ‘determining’ and serving as a ‘back-drop for human action’, things might authorize, allow, afford, encourage, permit, suggest, influence, block, render possible, forbid, and so on.⁸³ ANT is not the empty claim that objects do things ‘instead’ of human actors: it simply says that no science of the social can even begin if the question of who and what participates in the action is not first of all thoroughly explored, even though it might mean letting elements in which, for lack of a better term, we would call *non-humans*. This expression, like all the others chosen by ANT is meaningless in itself. It does not designate a domain of reality. It does not designate little goblins with red hats acting at atomic levels, only that the analyst should be prepared to look in order to account for the durability and extension of any interaction.⁸⁴ The project of ANT is simply to extend the list and modify the shapes and figures of those assembled as participants and to design a way to make them act as a durable whole.

For sociologists of associations, what is new is not the multiplicity of objects any course of action mobilizes along its trail—no one ever denied they were there by the thousands; what is new is that objects are suddenly highlighted not only as being full-blown actors, but also as what explains the contrasted landscape we started with, the over-arching powers of society, the huge asymmetries, the crushing exercise of power. This is the surprise from which sociologists of associations wish to start instead of considering, as do most of their colleagues, that the question is obviously closed and that objects do nothing, at least nothing comparable or even *connectable* to human social action, and that if they can sometimes ‘express’ power relations, ‘symbolize’ social hierarchies, ‘reinforce’ social inequalities, ‘transport’ social power, ‘objectify’ inequality, and ‘reify’ gender relations, they cannot be at the origin of social activity.

⁸³ This is why the notion of affordance, introduced in James G. Gibson (1986), *The Ecological Approach to Visual Perception*, has been found so useful. The multiplicity of modes of action when dealing with technology—hard and soft—is marvellously followed by Suchman, *Plans and Situated Actions*, C. Goodwin and M. Goodwin (1996), ‘Formulating planes: Seeing as a situated activity’, and Bernard Conein, Nicolas Dodier and Laurent Thévenot (1993), *Les objets dans l'action. De la maison au laboratoire*.

⁸⁴ There is a bit of anthropocentric bias in using the expression *non-humans*. I have explained in detail elsewhere how the couple human/non-human should be substituted for the insurmountable dichotomy between subject and object (see Latour, *Politics of Nature*). No extra meaning should be looked for in this notion: it does not specify any ontological domain, but simply replaces another conceptual difference. For a complete panorama of humans/non-humans relations, see Philippe Descola (2005), *La nature des cultures*.

A good example of an asymmetric definition of actors is offered by Durkheim (1966: 113) when he states:

'The first origins of all social processes of any importance should be sought in the internal constitution of the social group. [italics in text]

It is possible to be even more precise. The elements which make up this milieu are of two kinds: things and persons. Besides material objects incorporated into the society, there must also be included the products of previous social activity: law, established customs, literary and artistic works, etc. But it is clear that the impulsion which determines social transformations can come from neither the material nor the immaterial, for neither possesses a motivating power [*puissance motrice*]. There is, assuredly, occasion to take them into consideration in the explanations one attempts. They bear with a certain weight on social evolution, whose speed and even direction vary according to the nature of these elements; but they contain nothing of what is required to put it in motion. They are the matter upon which the social forces of society act, but by themselves they release no social energy [*aucune force vive*]. As an active factor, then, the human milieu itself remains.'

This, for me, has always been a great surprise: How is it that, in spite of this massive and ubiquitous phenomenon, sociology remains 'without object'? It is even more startling when you realize that this discipline emerged a full century after the Industrial Revolution and has been evolving in parallel with the largest and most intensive technical developments since the Neolithic. Not only that, but how to explain that so many social scientists pride themselves in considering 'social meaning' *instead* of 'mere' material relations, 'symbolic dimension' *instead* of 'brute causality'? Much like sex during the Victorian period, objects are nowhere to be said and everywhere to be felt. They exist, naturally, but they are never given a thought, a social thought. Like humble servants, they live on the margins of the social doing most of the work but never allowed to be represented as such. There seems to be no way, no conduit, no entry point for them to be knitted together with the same wool as the rest of the social ties. The more radical thinkers want to attract attention to humans in the margins and at the periphery, the less they speak of objects. As if a damning curse had been cast unto things, they remain asleep like the servants of some enchanted castle. Yet, as soon as they are freed from the spell, they start shuddering, stretching, and muttering. They begin to swarm in all directions, shaking the other human actors, waking them out of their dogmatic sleep. Would it be too childish to say that ANT played the role of the Charming Prince's kiss tenderly touching Sleeping

Beauty's lips? At any rate, it is because it was an object-oriented sociology for object-oriented humans that this school of thought was noticed in the first place—and that it makes sense to write an introduction to it.

Objects help trace social connections only intermittently

It is true that, at first sight, the difficulty of registering the role of objects comes from the apparent *incommensurability* of their modes of action with traditionally conceived social ties. But sociologists of the social have misunderstood the nature of such incommensurability. They have concluded that because they are incommensurable they should be kept separate from proper social ties, without realizing that they should have concluded precisely the opposite: it's because they are incommensurable that they have been fetched in the first place! If they were as weak as the social skills they have to reinforce, if they were made of the same material quality, where would the gain be? Baboons we were, baboons we would have remained!⁸⁵

It's true that the force exerted by a brick unto another brick, the spin of a wheel onto an axis, the balance of a lever onto a mass, the gearing down of a force through a pulley, the effect of fire on phosphorus, all of those modes of action seem to pertain to categories so obviously different from the one exerted by a 'stop' sign on a cyclist or that of a crowd over an individual mind that it seems perfectly reasonable to put material and social entities on two different shelves. Reasonable but absurd, once you realize that any *human* course of action might weave together in a matter of minutes, for instance, a shouted order to lay a brick, the chemical connection of cement with water, the force of a pulley unto a rope with a movement of the hand, the strike of a match to light a cigarette offered by a co-worker, etc. Here, the apparently reasonable division between material and social becomes just what is obfuscating any enquiry on how a *collective* action is possible. Provided of course that by collective we don't mean an action carried over by homogeneous social forces, but, on the contrary, an action that collects different types of forces woven together because they are

⁸⁵ This is the power of the now outdated but still beautiful synthesis offered in André Leroi-Gourhan (1993), *Gesture and Speech*. For a more recent review of the state of the art, see Pierre Lemonnier (1993), *Technological Choices. Transformation in Material Cultures since the Neolithic* and Bruno Latour and Pierre Lemonnier (1994), *De la préhistoire aux missiles balistiques - l'intelligence sociale des techniques*.

different.⁸⁶ This is why, from now on, the word 'collective' will take the place of 'society'. Society will be kept only for the assembly of already gathered entities that sociologists of the social believe have been made in social stuff. Collective, on the other hand, will designate the project of assembling new entities not yet gathered together and which, for this reason, clearly appear as being not made of social stuff.

Any course of action will thread a trajectory through completely foreign modes of existence that have been brought together by such heterogeneity. Social inertia and physical gravity might seem unconnected, but they need no longer be when a team of workers is building a wall of bricks: they part company again only *after* the wall is completed. But while the wall is being built, there is no doubt that they are connected. How? The enquiry will determine this. ANT claims that we should simply not believe the question of the connections among heterogeneous actors to be closed, that what is usually meant by 'social' has probably to do with the reassembling of new types of actors. ANT states that if we wish to be a bit more realistic about social ties than 'reasonable' sociologists, then we have to accept that the continuity of any course of action will rarely consist of human-to-human connections (for which the basic social skills would be enough anyway) or of object-object connections, but will probably zigzag from one to the other.

To get the right feel for ANT, it's important to notice that this has nothing to do with a 'reconciliation' of the famous object/subject dichotomy. To distinguish a priori 'material' and 'social' ties before linking them together again makes about as much sense as to account for the dynamic of a battle by imagining a group of soldiers and officers stark naked with a huge heap of paraphernalia—tanks, rifles, paperwork, uniforms—and then claim that 'of course there exist some (dialectical) relation between the two'.⁸⁷ One should retort adamantly 'No!' There exists no relation whatsoever between 'the material' and 'the social world', because it is this very division which is a complete

⁸⁶ This is what was at stake in the dispute about the exact role of non-humans and known as the 'Bath controversy'. See Harry Collins and Steven Yearley (1992), 'Epistemological Chicken' and Michel Callon and Bruno Latour (1992), 'Don't throw the Baby out with the Bath School! A reply to Collins and Yearley'—a tiny landmark for our little field.

⁸⁷ See Diane Vaughan (1996), *The Challenger Launch Decision: Risky Technology, Culture and Deviance at NASA*. 'But I believed that with sufficient immersion in the case materials and by consulting technical experts, I could sufficiently master the technical details necessary to get at the sociological questions. It was, after all, human behavior I wanted to explain, and I was trained to do that' (p. 40). This position is reasonable but is it the best way to follow a course of action like this one: 'At approximately 7:00 a.m., the ice team made its second launch pad inspection. On the basis of their report, the launch time was slipped to permit a third ice inspection' (p. 328). Where is the split here between engineering and sociology?

artifact.⁸⁸ To reject such a divide is not to 'relate' the heap of naked soldiers 'with' the heap of material stuff: it is to redistribute the whole assemblage from top to bottom and beginning to end. There is no empirical case where the existence of *two* coherent and homogeneous aggregates, for instance technology 'and' society, could make any sense. ANT is not, I repeat is not, the establishment of some absurd 'symmetry between humans and non-humans'. To be symmetric, for us, simply means *not* to impose a priori some spurious *asymmetry* among human intentional action and a material world of causal relations. There are divisions one should never try to bypass, to go beyond, to try to overcome dialectically. They should rather be ignored and left to their own devices, like a once formidable castle now in ruins.⁸⁹

This interest for the object has nothing to do with a privilege given to 'objective' matter in opposition to 'subjective' language, symbols, values, or feelings. As we will see when absorbing the next source of uncertainty, the 'matter' of most self-proclaimed materialists does not have a great deal to do with the type of force, causality, efficacy, and obstinacy non-human actants possess in the world. 'Matter', we will soon realize, is a highly politicized interpretation of causality. In order to absorb the third source of uncertainty, we should be ready to inquire about the agency of all sorts of objects. But since objects have such poor and constricted roles in most of the social sciences, it's very difficult to extend their original activity to other types of material like documents, writings, charts, files, paper clips, maps, organizational devices, in brief intellectual technologies.⁹⁰ As soon as some

⁸⁸ Psychologists have shown that even a two-month-old baby can clearly differentiate intentional and non-intentional movements. Humans and objects are clearly distinct. See Olivier Houdé (1997), *Rationalité, développement et inhibition: Un nouveau cadre d'analyse* and Dan Sperber, David Premack and Ann James Premack (1996), *Causal Cognition: A Multidisciplinary Debate*. But a difference is not a divide. Toddlers are much more reasonable than humanists: although they recognize the many differences between billiard balls and people, this does not preclude them to follow how their actions are woven into the *same* stories.

⁸⁹ This is the reason why I have abandoned most of the geometrical metaphor about the 'principle of symmetry' when I realized that readers concluded from it that nature and society had to be 'maintained together' so as to study 'symmetrically' 'objects' and 'subjects', 'non-humans' and 'humans'. But what I had in mind was not *and*, but *neither*: a joint *dissolution of both collectors*. The last thing I wanted was to give nature and society a new lease on life through 'symmetry'.

⁹⁰ Distributed cognition, situated knowledge, history of intellectual technologies, science studies, administrative sciences, and social accounting have each in its own way multiplied the range of objects engaged in making interactions longer lasting and further reaching. This long trend to materialize non-material technologies goes back to Jack Goody (1977), *The Domestication of the Savage Mind*; see Geoffrey C. Bowker and Susan Leigh Star (1999), *Sorting Things Out: Classification and Its Consequences*; Paolo Quattrone (2004), 'Accounting for God. Accounting and Accountability Practices in the Society of Jesus (Italy, 16th–17th centuries)'; and the now classical work of Michel Foucault (1973), *The Birth of the Clinic. An Archaeology of Medical Perception*.

freedom of movement is granted back to non-humans, the range of agents able to participate in the course of action extends prodigiously and is no longer restricted to the 'middle size dry goods' of analytical philosophers. What makes ANT difficult to grasp is that it fills in precisely the space that is emptied by critical sociologists with the damning words of 'objectification' and 'reification'.

Yet sociologists of the social are not fools. They have good reason to hesitate before following the social fluid wherever it leads them. What is so difficult to comprehend at first is that an ANT study has to tackle both continuity and discontinuity among modes of action. We have to become able to follow the smooth continuity of heterogeneous entities and the complete *discontinuity* between participants that, in the end, will always remain incommensurable. The social fluid does not offer to the analyst a continuous and substantial existence, but rather puts up only a provisional appearance much like a shower of physical particles in the brief instant it's forced into existence. You begin with assemblages that look vaguely familiar and you end up with completely foreign ones. It is true that this oscillation makes the tracing of social connections especially tricky once you begin to add non-humans to the list of *bona fide* social ties.

A shepherd and his dog remind you nicely of social relations, but when you see her flock behind a barbed wire fence, you wonder where is the shepherd and her dog—although sheep are kept in the field by the piercing effect of wire barbs more obstinately than by the barking of the dog. There is no doubt that you have become a couch potato in front of your TV set thanks largely to the remote control that allows you to surf from channel to channel⁹¹—and yet there is no *resemblance* between the causes of your immobility and the portion of your action that has been carried out by an infrared signal, even though there is no question that your behavior has been *permitted* by the TV command.

Between a car driver that slows down near a school because she has seen the '30 MPH' yellow sign and a car driver that slows down because he wants to protect the suspension of his car threatened by the bump of a 'speed trap', is the difference big or small? Big, since the obedience of the first has gone through morality, symbols, sign posts, yellow paint, while the other has passed through the same list to which has been added a carefully designed concrete slab. But it is small since they both have obeyed something: the first driver to a rarely manifested altruism—if she had not slowed down, her heart would have been broken by the moral law; the second driver to a largely distributed

⁹¹ Try it for yourself: throw it away and see how long you will spend moving back and forth from the couch to the set.

selfishness—if he had not slowed down his suspension would have been broken by the concrete slab. Should we say that only the first connection is social, moral and symbolic, and that the second is objective and material? No. But, if we say that both are social, how are we going to justify the difference between moral conduct and suspension springs? They might not be social all the way through, but they certainly are *collected* or *associated* together by the very work of road designers. One cannot call oneself a social scientist and pursue only some links—the moral, legal, and symbolic ones—and stop as soon as there is some physical relation interspersed in between the others. That would render any enquiry impossible.⁹²

How long can a social connection be followed without objects taking the relay? A minute? An hour? A microsecond? And for how long will this relay be visible? A minute? An hour? A microsecond? One thing is certain: if we interrupt our fieldwork at each relay by focusing only on the list of already gathered connections, the social world would become immediately opaque, shrouded into those strange autumn fogs that leave visible only tiny and unpredictable smears of the landscape. And yet, on the other hand, if sociologists have also to become engineers, artisans, craftsmen, designers, architects, managers, promoters etc., they will never end up following their actors through those many intermittent existences. So, we have to take non-humans into account only as long as they are rendered commensurable with social ties and also to accept, an instant later, their fundamental incommensurability.⁹³ To travel around using an ANT definition of 'social' requires quite a lot of nerve. No wonder then that sociologists of the social balked at that difficulty! That they had good reasons to abstain from following those oscillations does not mean, however, that they were right. It only means that sociology requires an extended range of tools.

⁹² Since ANT is often accused of being indifferent to morality, it's worth recalling that there are good deontological reasons in having at least as much freedom of movement as the actors we study. This principle is as old as the notion of translation. See Michel Callon (1981) 'Struggles and Negotiations to Decide What is Problematic and What is Not: The Sociology of Translation'.

⁹³ This is clearly at odds with the explicitly asymmetric program offered in Weber 'To be devoid of meaning is not identical with being lifeless or non-human; every artifact, such as for example a machine, can be understood only in terms of the meaning which its production and use have had or will have for human action; a meaning which may derive from a relation to exceedingly various purposes. Without reference to this meaning such an object remains wholly unintelligible.' Max Weber (1947), *The Theory of Social and Economic Organization* (p. 93) Then follows a definition of means and ends completely at odds with the notion of mediators.

A list of situations where an object's activity is made easily visible

In exploring the new associations making up the social, ANT scholars have to accept two contradictory demands: on the one hand, we don't want the sociologist to limit oneself to social ties; on the other, we don't ask the enquirer to become a specialized technologist. One solution is to stick to the new definition of social as a fluid visible *only* when new associations are being made. Such is the rightful 'domain' of ANT, even though it is not a specific stretch of land nor an enclosed turf but only a brief flash which may occur everywhere like a sudden change of phase.

Fortunately for the analysts, those situations are not as rare as one might think. To be accounted for, objects have to enter into accounts. If no trace is produced, they offer no information to the observer and will have no visible effect on other agents. They remain silent and are no longer actors: they remain, literally, unaccountable. Although the situation is the same for groups and agencies—no trial, no account, no information—it is clearly more difficult for objects, since carrying their effects while becoming silent is what they are so good at as Samuel Butler noted.⁹⁴ Once built, the wall of bricks does not utter a word—even though the group of workmen goes on talking and graffiti may proliferate on its surface. Once they have been filled in, the printed questionnaires remain in the archives forever unconnected with human intentions until they are made alive again by some historian. Objects, by the very nature of their connections with humans, quickly shift from being mediators to being intermediaries, counting for one or nothing, no matter how internally complicated they might be. This is why specific tricks have to be invented to *make them talk*, that is, to offer descriptions of themselves, to produce *scripts* of what they are making others—humans or non-humans—do.⁹⁵

Again, this situation is not different for groups and agencies we reviewed earlier since humans, too, have to be made to talk; and this is why very elaborate and, often, artificial situations have to be devised to reveal their actions and performances (more on this in the fifth uncertainty). But still, there is a difference: once humans become mediators again, it is hard to stop them. An indefinite stream of data springs forth, whereas objects, no matter how important, efficient,

⁹⁴ Samuel Butler (1872), *Erewhon*.

⁹⁵ Madeleine Akrich (1992), 'The De-Description of Technical Objects'; Madeleine Akrich (1993), 'A Gazogene in Costa Rica: An Experiment in Techno-Sociology'; and Madeleine Akrich and Bruno Latour (1992), 'A Summary of a Convenient Vocabulary for the Semiotics of Human and Non-Human assemblies'.

central, or necessary they may be, tend to recede into the background very fast, interrupting the stream of data—and the greater their importance, the faster they disappear. It does not mean they stop acting, but that their mode of action is no longer *visibly connected* to the usual social ties since they rely on types of forces chosen precisely for their differences with the normal social ones. Speech acts always look comparable, compatible, contiguous, and continuous with other speech acts; writing with writing; interaction with interaction; but objects appear associable with one another and with social ties only *momentarily*.⁹⁶ This is quite normal since it is through their very heterogeneous agencies that social ties have been provided with completely different shape and figures—normal but tricky.

Fortunately, it is possible to multiply the occasions where this momentary visibility is enhanced enough to generate good accounts. Much of ANT scholars' fieldwork has been devoted to trigger these occasions so I can go quickly.

The first solution is to study *innovations* in the artisan's workshop, the engineer's design department, the scientist's laboratory, the marketer's trial panels, the user's home, and the many socio-technical controversies. In these sites objects live a clearly multiple and complex life through meetings, plans, sketches, regulations, and trials. Here, they appear fully mixed with other more traditional social agencies. It is only once in place that they disappear from view. This is why the study of innovations and controversies has been one of the first privileged places where objects can be maintained longer as visible, distributed, accounted mediators before becoming invisible, asocial intermediaries.

Second, even the most routine, traditional, and silent implements stop being taken for granted when they are approached by users rendered ignorant and clumsy by *distance*—distance in time as in archaeology, distance in space as in ethnology, distance in skills as in learning. Although those associations might not trace an innovation per se, the same situation of novelty is produced, for the analyst at least, by the irruption into the normal course of action of strange, exotic, archaic, or mysterious implements. In those encounters, objects become mediators, at least for a while, before soon disappearing again through know-how, habituation, or disuse. Anyone who has tried to make sense of a user's manual will know how time-consum-

⁹⁶ Both impressions are only superficially true. A human's course of action is never homogeneous and there is never a technology that is so well organized that it runs automatically. And yet, the practical difference remains for someone who is carrying out the inquiry.

ing—and how painful—it is to read what is ironically called an ‘assembly drawing’.⁹⁷

The third type of occasion is that offered by accidents, breakdowns, and strikes: all of a sudden, completely silent intermediaries become full-blown mediators; even objects, which a minute before appeared fully automatic, autonomous, and devoid of human agents, are now made of crowds of frantically moving humans with heavy equipment. Those who watched the *Columbia* shuttle instantly transformed from the most complicated human instrument ever assembled to a rain of debris falling over Texas will realize how quickly objects flip-flop their mode of existence. Fortunately for ANT, the recent proliferation of ‘risky’ objects has multiplied the occasions to hear, see, and feel what objects may be doing when they break other actors down.⁹⁸ Official enquiries are happening everywhere to map out for us the fabulous extension of what social ties have become in the hands of technical setups. Here again, it will never be the lack of material that will stop the studies.⁹⁹

Fourth, when objects have receded into the background for good, it is always possible—but more difficult—to bring them back to light by using archives, documents, memoirs, museum collections, etc., to artificially produce, through historians’ accounts, the state of crisis in which machines, devices, and implements were born.¹⁰⁰ Behind each bulb Edison can be made visible, and behind any microchip is the huge, anonymous Intel. By now, the history of technology should have forever subverted the ways in which social and cultural histories are narrated.¹⁰¹ Even the humblest and most ancient stone tools from the Olduvai Gorge in Tanzania have been turned by paleontologists into the very mediators that triggered the evolution of ‘modern man’.

⁹⁷ See Donald A. Norman (1988), *The Psychology of Everyday Things*, Donald Norman (1993), *Things that Make Us Smart*; Madeleine Akrich and Dominique Bouillier (1991), ‘Le mode d’emploi: genèse et usage’; and Chapter 6 in Garfinkel (2002), *Ethnomethodology’s Program: Working Out Durkheim’s Aphorism*.

⁹⁸ The multiplication of those ‘risky’ objects is at the heart of Ulrich Beck (1992), *Risk Society. Towards a New Modernity*. Although he uses an entirely different social theory, Beck’s attention to the new forms of objectivity (what he calls ‘reflexive modernisation’) has his innovative sociology in very close conversation with ANT, especially through its political, or rather, ‘cosmopolitical’ interests.

⁹⁹ Thanks to the proliferation of accidents and the extension of democratic interests, those sources of data multiply. See Michel Callon, Pierre Lascoumes and Yannick Barthe (2001), *Agir dans un monde incertain. Essai sur la démocratie technique*; Richard Rogers (2005), *Information Politic on the Web*; and Vaughan, *The Challenger Launch Decision*.

¹⁰⁰ The encounter with Thomas P. Hughes (1983), *Networks of Power. Electrification in Western Society, 1880–1930* was important because Hughes abstained from giving an explanation in terms of social shaping of technology and had coined the expression ‘seamless web’. See Thomas P. Hughes (1986), ‘The Seamless Web: Technology, Science, Etcetera, Etcetera’.

¹⁰¹ There is no difference, on that score, between history of technology and ANT, except when the social theory is made explicit—but often this sociological packaging has so little relation to the cases at hand that it makes no real difference.

Finally, when everything else has failed, the resource of fiction can bring—through the use of counterfactual history, thought experiments, and ‘scientifiction’—the solid objects of today into the fluid states where their connections with humans may make sense. Here again, sociologists have a lot to learn from artists.¹⁰²

Whatever solution is chosen, the fieldwork undertaken by ANT scholars has demonstrated that if objects are not studied it is not due to a lack of data, but rather a lack of will. Once the conceptual difficulty of the flip-flop between commensurability and incommensurability has been lifted, all of the remaining problems are matters of empirical research: they are not a matter of principle any more. The impassable boundary marked by some Herculean Columns to stop the social sciences reaching beyond the narrow confines of social ties has been left behind. It’s thus possible now for social scientists to catch up with what paleontologists call ‘anatomically modern humans’, who have already been settled for tens of thousands of years beyond the limits dictated to them by *social science*.

Who has been forgetting power relations?

We can now at last put our finger on what upset ANT so much in the pretensions of the sociology of the social to explain asymmetries in order to be faithful to the central intuition of their science: they could not deliver. The word ‘social’ meant either local face-to-face interactions that were too transient to account for asymmetries or a magical appeal to tautological forces whose exact price in object-load they were never ready to fully pay.

Social explanations run the risk of hiding that which they should reveal since they remain too often ‘without object’.¹⁰³ In their study, sociologists consider, for the most part, an object-less social world, even though in their daily routine they, like all of us, might be constantly puzzled by the constant companionship, the continuous intimacy, the inveterate contiguity, the passionate affairs, the convoluted attachments of primates with objects for the past one

¹⁰² It ranges from Francis Ponge’s (1972), *The Voice of Things* to the thought experiments allowed by science fiction or Richard Powers’s decisive work as a novelist of science studies in, for instance, Richard Powers (1995), *Galatea 2.2*.

¹⁰³ Even though objects proliferate in the works of Simmel, Elias, and Marx, the presence of objects is not enough to load the social. It’s their way of entry that makes the difference. Hence the necessity to add the fourth uncertainty (see next chapter) to the one on agency and later the redefinition of politics (see Conclusion). For a very useful collection of cases on the effect of technology studies on materialism, see Donald MacKenzie and Judy Wajcman (1999), *The Social Shaping of Technology*.

million years. When we define the quality control of ANT accounts, we have to be very scrupulous in checking whether power and domination are explained by the multiplicity of objects given a central role and transported by vehicles which should be empirically visible—and we will not be content to have power and domination *themselves* be the mysterious container that holds inside of it that which makes the many participants in the action move.

To follow the social links even when they weave their way through non-social objects might be difficult for a reason that has nothing to do with theory. For the social scientists, there were some serious motives behind the need to ceaselessly patrol the border separating the ‘symbolic’ from the ‘natural’ domain, namely a good—that is, a bad—polemical argument. To carve out a little niche for themselves, they had abandoned, early in the 19th century, things and objects to the scientists and engineers. The only way to plead for a little autonomy was to forsake the vast territories they had given up and stick forcefully to the shrinking plot allotted to them: ‘meaning’, ‘symbol’, ‘intention’, ‘language’. When a bicycle hits a rock, it is not social. But when a cyclist crosses a ‘stop’ sign, it becomes social. When a new telephone switchboard is installed, this is not social. But when the colors of telephone sets are discussed, this becomes social because there is, as designers say, ‘a human dimension’ in the choice of such a fixture. When a hammer hits a nail, it is not social. But when the image of a hammer is crossed with that of a sickle, then it graduates to the social realm because it enters the ‘symbolic order’. Every object was thus divided in two, scientists and engineers taking the largest part—efficacy, causality, material connections—and leaving the crumbs to the specialists of ‘the social’ or ‘the human’ dimension. Thus, any allusion by ANT scholars to the ‘power of objects’ over social relations was a painful reminder, for sociologists of the social, of the clout of the other ‘more scientific’ departments on their independence—not to mention grant money—and on the territories they were no longer allowed to walk through freely.

But polemics among disciplines does not produce good concepts, only barricades made of any available debris. When any state of affairs is split into one material component to which is added as an appendix a social one, one thing is sure: this is an artificial division imposed by the disciplinary disputes, not by any empirical requirement. It simply means that most of the data has vanished, that the collective course of action has not been followed through. To be ‘both material and social’ is not a way for objects to exist: it is simply a way for them to be artificially cut off and to have their specific agency rendered utterly mysterious.

It is fair to say that social scientists were not alone in sticking polemically to one metaphysic among the many at hand. Their 'dear colleagues' in the other hard science departments were also trying to claim that all material objects have only 'one way' to act and that was to 'causally determine' other material objects to move. As we shall see in the next chapter, they were granting the social no other role than that of an intermediary faithfully 'transporting' the causal weight of matter. When the social realm is given such an infamous role, great is the temptation to overreact and to turn matter into a mere intermediary faithfully 'transporting' or 'reflecting' society's agency. As usual with those polemics among disciplines, stupidity breeds stupidity. To avoid the threat of 'technical determinism', it is tempting to defend adamantly 'social determinism', which in turn becomes so extreme (the steam engine becoming, for instance, the 'mere reflection' of 'English capitalism') that even the most open-minded engineer becomes a fierce technical determinist bumping the table with virile exclamations about the 'weight of material constraints'. These gestures have no other effect but to trigger even a moderate sociologist to insist even more vehemently on the importance of some 'discursive dimension'.¹⁰⁴

What renders these disputes moot is that the choice between these positions is unrealistic. It would be incredible if the millions of participants in our courses of action would enter the social ties through three modes of existence and *only three*: as a 'material infrastructure' that would 'determine' social relations like in the Marxian types of materialism; as a 'mirror' simply 'reflecting' social distinctions like in the critical sociologies of Pierre Bourdieu; or as a backdrop for the stage on which human social actors play the main roles like in Erving Goffman's interactionist accounts. None of those entries of objects in the collective are wrong, naturally, but they are only primitive ways of packaging the bundle of ties that make up the collective. None of them are sufficient to describe the many entanglements of humans and non-humans.

Talking of 'material culture' would not help very much since objects, in this case, would be simply connected *to one another* so as to form an homogeneous layer, a configuration which is even less likely than one which imagines humans linked to one another by nothing else than

¹⁰⁴ See examples of this tug-of-war and on the ways to pacify it in Philippe Descola and Gisli Palsson (1996), *Nature and Society. Anthropological Perspectives*. See also Tim Ingold (2000), *Perception of the Environment: Essays in Livelihood, Dwelling and Skill* and the early discussions around Bijker's volumes in Wiebe Bijker and John Law (1992), *Shaping Technology-Building Society: Studies in Sociotechnical Change*; Wiebe E. Bijker, Thomas P. Hughes and Trevor Pinch (1987), *The Social Construction of Technological Systems. New Directions in the Sociology and History of Technology*; and Wiebe Bijker (1995), *Of Bicycles, Bakelites, and Bulbs. Towards a Theory of Sociotechnical Change*.

social ties. Objects are never assembled together to form some other realm anyhow, and even if it were the case they would be neither strong nor weak—simply ‘reflecting’ social values or being there as mere decorum. Their action is no doubt much more varied, their influence more ubiquitous, their effect much more ambiguous, their presence much more distributed than these narrow repertoires. The best proof of this multiplicity is provided by a close look at what objects really do in the texts of the writers alluded to above: they deploy many *other* ways for objects to act than the ones granted to them by their author’s own philosophy of matter. Even as textual entities, objects overflow their makers, intermediaries become mediators.¹⁰⁵ But in order to learn this lesson, the research field should be made wide open to begin with and it cannot be opened if the difference between human action and material causality is maintained as adamantly as Descartes’s distinguished mind from matter (*res extensa* from the *res cogitans*) as a proof of scientific, moral and theological virtue—and even *he* kept open the tiny conduit of the pineal gland that sociologists of the social have cut off as well.

There exists, however, an even more important reason for rejecting adamantly the role given to objects in the sociology of the social: it voids the appeals to power relations and social inequalities of any real significance. By putting aside the practical means, that is the mediators, through which inertia, durability, asymmetry, extension, domination is produced and by conflating all those different means with the powerless power of social inertia, sociologists, when they are not careful in their use of social explanations, are the ones who hide the real causes of social inequalities. If there is one point where confusing cause and effect makes a huge difference, it is at this juncture when an *explanation* should be provided for the vertiginous effect of domination. Of course, appealing to ‘social domination’ might be useful as shorthand, but then it is much too tempting to *use* power instead of *explaining* it and that is exactly the problem with most ‘social-explainers’: in their search for *powerful explanations*, is it not *their* lust for power that shines through? If, as the saying goes, absolute power corrupts absolutely, then gratuitous use of the concept of power by so many critical theorists has corrupted them absolutely—or at least rendered their discipline redundant and their politics impotent. Like the ‘dormitive virtue of opium’ ridiculed by Molière, ‘power’ not only puts analysts to sleep, which does not matter so much, it also try to anesthetize the actors as well—and that is a political crime. This

¹⁰⁵ A crucial case is fetishism in *The Capital* where the textual fetish does much more in the text of Marx than what Marx himself reduces the fetish to do. See William Pietz (1985), ‘The Problem of the Fetish, I’ and William Pietz (1993), ‘Fetishism and Materialism: the Limits of Theory in Marx’.

rationalist, modernist, positivist science nurtures in its bosom the most archaic and magical ghost: a self-generated, self-explicative society. To the *studied* and *modifiable* skein of means to achieve powers, sociology, and especially critical sociology, has too often substituted an invisible, unmovable, and homogeneous world of power for itself.¹⁰⁶ In sociology, powerful explanations should be counterchecked and counterbalanced.

Thus, the accusation of forgetting ‘power relations’ and ‘social inequalities’ should be placed squarely at the door of the sociologists of the social. If sociologists of associations wish to inherit this ancient, venerable, and fully justified intuition of the social science—power is unequally distributed—they also have to explain how domination has become so efficacious and through which unlikely means. Quite reasonably, it is for them the only way to make it modifiable. But to do so, a fourth uncertainty has to be accepted, a fourth can of worms opened—and this one is a Pandora’s box.

¹⁰⁶ That this lesson is easy to forget is shown dramatically by the transatlantic destiny of Michel Foucault. No one was more precise in his analytical decomposition of the tiny ingredients from which power is made and no one was more critical of social explanations. And yet, as soon as Foucault was translated, he was immediately turned into the one who had ‘revealed’ power relations *behind* every innocuous activity: madness, natural history, sex, administration, etc. This proves again with what energy the notion of social explanation should be fought: even the genius of Foucault could not prevent such a total inversion.