From ANT to Pragmatism: A Journey with Bruno Latour at the CSI*

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B RUNO LATOUR AND I HAVE BEEN TRAVELING companions for a long time, starting with his long period at the CSI (Centre de Sociologie de l'Innovation) at the École des Mines in Paris, through to the SPEAP program (Experimental Programme in Political Arts) that he is currently instituting at Sciences Po. In the latter, students start by inquiring into emerging problems, such as environmental ones, then begin rebuilding the links between political, scientific, and artistic representations that the traditional disciplines have so systematically disconnected. Rather than discuss in an abstract fashion the possible relations between the humanities and Latour's *An Inquiry into Modes of Existence*, I am going to retrace these kinds of relations by looking at actually occurring exchanges, in particular at the CSI. These links and trajectories have been numerous, as much among domains (sciences and technology, law, culture, economy, health) as among concepts (transla-tion, mediation, regimes of enunciation, agency, attachment, etc.). The *Inquiry* is the culmination of a long-running project,[1] from the first work of Latour and Steve Woolgar on laboratories, then to STS and the begin-nings of actor-network-theory (ANT) worked out together with Michel Callon and John Law (and quickly subjected to their own critique, as in Law and John Hassard's 1999 *Actor Network Theory and After*), through to the interrogation of the Moderns launched in a spectacular fashion by *We Have Never Been Modern* in 1991, and the less diplomatic proposi-tion to sociologists that they rebuild sociology without Émile Durkheim (*Reassembling the Social*, 2005). The *Inquiry* is both a recapitulation of the results of ANT and an explicitly pluralist and pragmatist reformula-tion of ANT methodology, as well as a response to the questions that the latter had left open—the price to pay for a radicalism that did its job well. One should also mention that the *Inquiry* has installed Latour and his current colleagues, especially Isabelle Stengers, on the pathway of those she calls the philosophers of difference: Gabriel Tarde, Wil-liam James, Alfred North Whitehead, Étienne Souriau, Gilles Deleuze, Michael Serres, Donna Haraway, etc.

I am going to put this overall path under the heading of a "return to the object," enabling me to draw out the threads supporting thought, like Latour's, that is always *in the process of making*. I will base this approach on the reciprocal exchanges that my own work on music, amateurs, and attachments has been able to weave between problems to do with science and technology on the one hand, and culture on the other.[2] Music is a network of crisscrossing mediations, the production of a disappearing object, and is always being remade through the artist's performance or amateur activity; it has been most suggestive in forging unusual pathways with technical objects that ANT has allowed us see differently. Rather than a historical review, I would like to carry out a kind of partial archeology of the *Inquiry*, taking questions that I am particularly interested in as points of departure, such as mediation and its contrast with translation, the question of attachments, our critical relations to Bourdieu's critical sociology, and a revival of pragmatism in social inquiries.

Networks, Association, Translation: Getting Sociology to Be Object-Friendly

From the end of the seventies, the CSI became known as a pioneer in the sociology of science and technology. Here, with Latour and his Dutch and English colleagues, Callon created the sociology of translation, then actor-network-theory, which, using the acronym ANT, took off in the anglophone world.[3] In the wake of David Bloor's powerful approach, *Knowledge and Social Imagery*, and of the *Sociology of Scientific Knowledge* (SSK) that set itself the task of treating supposedly true or false statements on the same footing, ANT was able to generalize this principle of symmetry in relation to a project's technical successes or failures, to the explanatory factors (social or technical) that were brought to bear, and to accountable actors (human or nonhuman).[4] In order to better describe science as it was happening and to analyze technological innovation, ANT proposed a series of concepts: network, association, *intéressement*, translation, and obligatory passage point.[5] These were notions that brought about a radical reversal between objects and relations: action made actors, *intéressement* made interest, the relation made the object, and not the other way around.

It's a bit suspect to claim radicalism for oneself, but, as it happens, this is part of the history of ANT, which burst onto a very diversified field with a polemical tone. Requiring sociology to take into account scientific and technical objects created a tension right away—a tension that I have placed at the heart of this text—first in relation to those

dedicated to their autonomy, like epistemologists, but also, hot on their heels and from the opposite direction as we got better at explaining our project, in relation to those wanting to reduce objects to "social constructions."[6] Callon, a sociologist and engineer, had worked on the politics of private and public research in order to rethink the place of the sciences in society. His foil was the Mertonian school of sociology of science. Latour, as a philosophy graduate, was for his part convinced that one could no longer do philosophy without carrying out inquiries in social science. Working with Françoise Bastide, he took the notions of shifter and actant, at the heart of his theory of translation, from Algirdas Greimas's semiotics. Apart from philosophy (in particular Gottfried Wilhelm Leibniz, Tarde, and Whitehead), his first references were primarily to anthropology, to the ethnology of technique and of culture, and to ethnomethodology (Aaron Cicourel, Woolgar, Michael Lynch).[7] He was more fired up by his intense battles with epistemology and the history of science than he was by sociology. The theoretical audacity that marked Callon and Latour's collaboration owes a lot to this complementarity of disciplinary sources.[8]

We were not the only ones in France advocating a return of the object to the social sciences. Among the first in these strands of sociology to take the pragmatic turn, which gave rise to very diverse interpretations and uses, were the GSPM (the Groupe de Sociologie Politique et Morale founded by Luc Boltanski, Michael Pollak, and Laurent Thévenot, which came up with the call for a "pragmatic sociology"); the CEMS (Centre d'Études des Mouvements Sociaux, where ethnomethodology, analysis of conversation, and situated action were read and discussed in terms of strengthening the theoretical bases of an American sociological research that the Bourdieusian tradition had reduced, a little too quickly, to symbolic interaction); and other places where the treatment of objects was made central to sociology.[9] It was a moment when all of these things were emerging.

At the CSI, over and above our various research projects, there was discussion of things that were strongly related at the level of the grammar of our debates, at their *hypertextual* level: the concept of association, the fact that it was not necessary to maintain a strict division between subjects and objects, or between humans and the things they manipulated. As work in STS advanced, the areas of research spread out toward the environment, law, health, the body, public debate, and politics.[10] For its part, the CSI, starting with relations between objects and their uses, became involved in domains such as the environment, health, or markets,[11] and developed other themes like agency and performativity, new concepts cutting across the domains of investigation (regimes of

enunciation, modes of existence, attachments, "agencements," framing and overflowing) that updated previous and tenuous divisions between users and producers, culture and technique, and politics and economy.[12]

In this context, the fact that I studied music is not just of anecdotal interest. These ideas—objects seen as provisional results of a heterogeneous tissue of relations being continually tried out, tested, reshaped, in order to produce other objects, without being able to reliably distinguish content and support, network and actors, products and users—were as valid for music as they were for technical projects. This association between culture and technology was simply reaffirming a classical idea of anthropology. I had come to the CSI to pursue a sociology of music that was not to be carried out against it, but with it. On the question of the place given by sociology to the object according to how "actors themselves" define it and become attached to it, this musical detour allows me to retrospectively link up projects that have dealt with technology or projects on culture without always making explicit their mutual borrowings or their differences.[13]

Can Science and Culture be Treated in the Same Way?

That the CSI had acquired its international reputation in the field of STS gave rise to the belief that the projects on culture carried out under its auspices were a broadening of its first research on technology. Historically, things went in the other direction. As soon as the Centre was founded in 1967 by Lucien Karpik, the aim was not only to take an interest in science and technology, markets, and users (natural subjects given our location in the École des Mines), but also, in a comparative sense, in several domains such as law and culture, drawing on the same idea, which was very new at that time in the framework of traditional sociology: content counts. Whether dealing with sociology of science, technology, culture, or law, it was not just a matter of doing institutional or professional histories, of speaking about organizations, social networks, fields, or reception—in other words, of enclosing a domain by reference to sociological realities, coming to terms with its functioning independently of its particular object—but, on the contrary, of realizing that it was impossible to understand what was going on without taking into account the fruits of the activity. This was already a way of recognizing that such fruits had a capacity for action, an *agency*, even if this idea was expressed more trivially at the time. So, the study of actors, organizations, etc., of course, but also of objects themselves with their specific assemblies, often very sophisticated, by means of which a domain

is progressively elaborated through controversies and challenges. And in the other direction, understanding that these objects of collective action create their actors and organizations, especially through their capacity to install their relative autonomy by interiorizing their own effects. Instead of shunning objects like the plague, sociology, in order to come to terms with the force of science and technology (or the law, or, for me, music), had to dare to face up to these objects. Far from being socially inert, they resist, they "work," they make things happen, they transform their users.

But things don't present themselves in the same way; it depends on whether one is speaking of science and technology, or of culture. Saying that law and culture are human things, made by people, "instituted," as the Romans would say, is common sense. Saying that physical laws, natural or formal, are socially constructed realities is, on the other hand, immediately shocking. In the STS debates, this thesis was understood as being constructivist, and for good reason. In the first instance, it was indeed a constructivist battle against the idea of an absolute truth, independent of the proofs that allow it to be known. This was also the moment when the CSI came to international attention.[14] In relation to dominant sociology, the initial constructivism of SSK—socially explaining *all* of science and not just its mistakes—and then that of STS (still fairly undifferentiated in its different versions, as was the case later, with ANT happening to be folded in) were both attacked for their radicalism and accused of being relativist.[15]

This explains the subtle differences among the CSI members according to their fields of research, something we were not entirely conscious of at the time. What was the same project came down, in the case of science, to making more social what was seen as objective, whereas the opposite was aimed for in the case of culture: respecting the objectivity of what sociology had reduced to social signs, to markers of differentiation among groups. This was, of course, on the condition of not understanding objectivity as an aesthetic absolute, or as the autonomy of a pure object; but rather of redefining the object as a knot of relations, as a tissue of associations and links that test each other and are more or less resistant, this object in turn transforms the collectives that take hold of it.

Translation or Mediation

In short, if we shared a concern to distance ourselves from a sociology believing in the autonomy of the social—leaving each of its specific objects to their respective sciences, while just studying their social as-

pects—this concern needed to express itself in opposing ways. Hence the preference for either the word "translation" or "mediation"; it's a good example of seeing a problematic in the process of emerging. In the case of music, the artwork had to be reconceived as a heterogeneous tissue (human, material, corporal, collective . . .), with its resistances and cumulative effects (a keyboard, a sound, a scale, the body of the instrumentalist, limited space and time . . .). To express this resistance of music to sociological reduction without going so far as to turn it into an autonomous object, and to show that these tissues of association "hang together," without dissolving in a codification of social differences, I had foregrounded the word mediation.[16] The word translation was well chosen for science and technology. While both words suggest that this necessitates a betrayal, translation also emphasizes passage or movement, the fact that the instauration of a truth requires links, work, trials. Mediation, for its part, is a better word for music because, if it supports the same general idea, it insists on the other side: that is, not just establishing but also interrupting the relation, making it overflow. A passage is not reduced to the transmission of an object; it does something else. It does not refer back to causes; it is a performance, with unforeseeable effects, that are not deducible from the sum total of causal factors.

We have to realize retrospectively the strength of the model that this line of argument was challenging and its pervasiveness in the social sciences. For anthropologists and sociologists, culture is defined as humans collectively projecting their social relations onto arbitrary objects. Durkheim propped up this view with a positive definition of society, Bourdieu repeated it by reversing the idea, turning it into a foundational mechanism for negating social domination: cultural objects are totems, pure signs pertaining to a code, which, on top of everything, doesn't know itself to be one . . . . We rejected this commonsensical notion. Music does something other than what the humans gathered around it would like it to do, something other than what they have programmed. This is why they listen to it; it is not their double, nor the mirror of their vanity. "Made" the way it is, it has its own capacity to act. It forges identities and sensibilities; it does not obey them. It does act (*fait oeuvre*) in this sense. To say this is neither to fall back into turning it into a social sign, nor to take it as an absolute object.[17] Souriau speaks eloquently of a "work to be made," which is calling us . . . . So on the culture side, the problem was posed in completely the opposite way to science, where, in the eyes of *social scientists*, it was impossible to question the absolute status of truth. The idea that the object is everything (science) or it is nothing (music) . . . ? Absolutely not! By seeing the musical thing as something that emerges, a presence, yet without having an object sitting there in front of us that one can isolate, mediation breaks this sterile

dualism. By insisting on association and on passages, translation does the same work when faced with a diesel motor or with a mathematical truth, which, for their part, give the impression that the object is untouchable.

In sum, if the word mediation really belongs to what I have called our hypertext in that period, and if it shares many of the features of translation, it deals with the other side of the problem that things pose for sociology: not just that they associate, but that they also stop doing so. In other words, we were developing the same idea, but on two opposite slopes. Latour was battling with epistemology, while at the same time hoping to "save" the specific regime of the determination of things that science has implemented. This made it possible for both camps to turn him into the enemy; those who held with the absolute character of scientific truth were scandalized, and he was treated as a traitor by those constructivists in the "linguistic turn" club who saw science as a story just like any other. On the topic of art, I recognized myself in this battle. Sociology had justifiably challenged the aesthetic of the absolute and its infinite quest for the autonomy of the Work with a capital W, while I was looking, for my part, for ways to recognize in works, with a small w, their capacity to act.

It took us some time to understand these articulations, and the need to use different words. Latour and I did so in two coauthored works, while Latour was writing on "factishes," developing the same idea.[18] We crafted a single rich definition of mediation or translation, as a way of dealing with the problem that things posed for sociology: as what resists (a common critical position, no doubt) but also that which goes beyond, that overflows, comes back; objects that you make, but that in return make you; that are made, but escape. In other words, they have their *agency*, their capacity to act. After a first article that compared mediations in science and in art, a second and more provocative essay inverted, term by term, Walter Benjamin's critique of modernism via his theory of the *aura* of the work of art and the destructive effects of mediations.[19] There are certainly many other ideas to be culled from Benjamin, but as it happens we wanted most of all to question the celebrity of this article centered on the idea of mediation, taking its very success as a symptom of the attraction (both critical and complicit) that is contained in every appeal to the idea of the modern.[20]

The Reflexivity of Things: Were We Really Constructivists?

Speaking of mediations means taking music away from the kind of analysis that uses external explanations and rule-bound effects; the kind

a sociologist would come to measure according to her own concerns, or a musicologist or a psychologist according to theirs. There are only partial and heterogeneous causes that cannot be tabled clearly. They are necessary; they make things emerge. From these assembled causes, effects erupt in an unforeseeable way, always being remade, and being themselves irreducible to the causes that brought them about. No doubt this is more difficult to express than putting things in a simple cause and effect relation, but at the same time I am not saying anything esoteric here. Mediation understood in this way is obvious to any musician sitting down to the keyboard. He knows there are his scales, his score, his touch, and the skills he has acquired, that without them he is nothing, and yet, even if he starts with these mediations, nothing is settled, the music will have to emerge; there is nothing that is automatic or guaranteed. Incidentally, as often happens, theory is lagging behind common sense here, and not the other way around. The surprise that peels away from the flux of things is the most ordinary of experiences, for an audience member, a painter, a footballer, a drinker. It is an experience shared by professionals and amateurs alike.

Out of the fabric of familiar things, a small but decisive deviation has effects that can be enormous, but they arise from the things themselves as they present themselves. It is the jazz improviser who plays the same piece a hundred times, and yet . . . wait, this time it's going this way, insisting on a quite new pathway. He follows it, tries it again . . . comes back, it has opened up a space. It's a difficult but important question, this "bringing about." What part does each element play in such a creative offering? Certainly the musician takes things up again, but the offering is realized in the movement itself, in the thrust of things, which hold out in some way a possibility to be seized. I have suggested that we speak of a reflexivity that things have in themselves, which are not given, but give themselves.[21]

There is a crucial factor here, that of recognizing in objects this "making" of things: both the fact that they are made and the fact that they make their making. A making that cares for things and does not oppose them (does not denaturalize or deconstruct them) because they are fabricated—the latter being a quite different aim, that of social constructivism. This moment of divergence (from social constructionism) and explication was very important for us. At the beginning the theme was confused, the question difficult and open to all sorts of misunderstandings. Latour suggested various solutions to extricate ourselves: contrast constructivism as such to social constructivism, call it constructionism and not constructivism, talk instead of fabrication, then recall, via his word "factishes," that these *facts*, as hard as wood, with which

positivists challenge him, are saying by their very name that, yes, they are made![22] The very word pragmatism no doubt helped us to realize that in reality we were not constructivists *at all*, in the sense of "socially constructed," which had in the meantime become an automatic slogan in sociology. Of course, initially, every sociological move is constructivist in the broad sense of the term. Faced with its object, whether it is art, religion, truth, morality, or culture, one shows that it is historical, that it depends on a time and a place, that it conveyed via corporeal practices and that it varies according to context, that it has procedures, that it is underpinned by convention, that it is supported by institutions . . . showing the believer how belief is produced, as Bourdieu said.[23]

Doing sociology necessarily means, to some extent, partaking of the original constructivism of the discipline. On the topics of science and culture, we traveled with sociologies very different from our own, as long as it was a matter of being opposed to the absolutism of truth in itself, or the beauty of Art for Art's sake. But as we went further, the same word designated two divergent paths: showing that things are constructed, *and that therefore they are nothing*, or, on the contrary, giving things themselves a role to play in these matters.[24] We were following the second path, and we first had to understand ourselves, and then to make understood, at what point it radically departed from what is generally understood as constructivism, whether it is Bourdieu's version or that of the linguistic turn, SSK, a good part of STS, or cultural studies. From a common starting point, the paths go in completely opposite directions.[25]

Obviously, things don't have an inherent nature; the work of the social sciences is to show their instauration. But once this is done, the next question that arises is even more arduous, a decisive bifurcation that Latour expressed admirably with his "factishes." Does this fabrication of things have to be played out *against* them or *with* them? The social sciences will remain at the threshold of this new territory as long as they maintain at any price their two founding intangible distinctions, between human action and the agency of objects, and between social interpretation and natural realities—the very distinctions that ANT challenged.[26]

Beyond Bourdieu?

On the culture side, moreover, this required me to situate myself in relation to critical sociology, the necessary background to any problematic on this subject—shall we say in relation to Bourdieu, who at that time was carrying out a massive task of anthropologization to get his discipline out of its positivist self-conception.[27] One forgets to what extent

sociology, in the 1970s—its writing, its reasoning, even its concepts—had a fundamentally realist character, in the most banal way, that did nothing to diminish its lively expressiveness or its political importance in public life—quite the contrary. Organizations, power, social class, interactions—all this was what was in front of us "for real," as much for the actors as for the observer. Thanks to Bourdieu, his philosophical view of culture, a reflexive writing style, a distinctive way of developing his arguments via circular phrasing, his attention to practices, capacities, and apparatuses, to the weight of the body, to collective and embodied history, there crystalized, in contrast to sociological common sense, what it seems appropriate to call an anthropological revival. On the topic of art, faced with the dualism of the work and its admirer, he brought about a welcome desubjectivation of the relation to works of art, a collective, instituted, incorporated redeployment—one that is situated, as one would say now. Of course, at the end of the day, and in line with the scientist and critical sociology that he was defending, Bourdieu took hold of the reins again and spirited back to the collective the same object that he had just put in the saddle, giving it back to the sociologist—your objects are not what they seem; they are the hidden play of your relations, which is what builds your common belief. The social is nothing other than your effort to install it, while at the same time hiding this installation from you.

It's a brilliantly devastating thesis, but even though its premises and consequences have been much discussed, I think what's been missed is that it is not required by the preceding anthropologization and can't be deduced from it. There is no need, starting from the latter, to launch into a sociological disqualification of the object, to change it into an *illusio*, in-lusionem, into the stakes that make up the social. The object, which at the beginning of the analysis was reinserted into a tissue of relations, bodies, apparatuses, and histories, now ends up being a totem. This is a magical trick, a sleight of hand.[28] The sociologist is himself creating what he believes he is describing among his actors; he conjures away the object of common action to replace it with the inert symbol of a purely social collective; in this movement he turns the social into a scientific object and attributes the study of it to himself. One way of presenting the work conducted at the time at the CSI, as much in STS as on the topics of culture, health, or markets, is to say that it preserved the "pragmatization" of our activities, the anthropologization that Bourdieu was carrying out in putting history, institutions, habitus, body, apparatuses, and dispositions into play.[29] But while Bourdieu did all this work *against* the object, in a traditional, very dualist procedure, opposing himself to those he believed were believers in the object,[30] our own projects tried

to respect the objects and the actors attached to them. Not in a "nevertheless" or "still . . ." fashion, a call for moderation ("objects have a certain autonomy, after all"), but, on the contrary, by emphasizing this general pragmatics without reservations, that is, by carrying it out *with* objects and not against them. Why not treat the objects in question in the same way that Bourdieu constantly does with regard to bodies, collectives, or apparatuses, but which he refuses to do for objects: why not see them as beings in formation, open, resistant, that make each other, in a reciprocal fashion, acting reflexively on those who cause them to come into being?

Perhaps it should be less a matter of criticizing Bourdieu than of taking up what he has done and applying it *also* to objects, instead of using it to quash them. It is true that this procedure turns everything around. To use contemporary language, it goes from a theory of practice to a real pragmatism. Objects have their *agency* that we make and that makes us. The key point here is the status given to objects. This means not taking them as external, fixed givens (conceding their natural reality in the case of science; making them into simple signs in the case of culture), but rather seeing them as indeterminately composed, made of the links that are knotted or unraveling as they undergo their trials, thereby creating unique and composed worlds. Certainly it means "socializing" objects, but not by emptying out their content. They can be allowed to fill up and fill us up, form diverse and connected worlds, and then layer by layer spread out and spread us out—at this point, no doubt, the paths diverge. To go on means leaving the trail blazed by Bourdieu: the bracketing of objects that leads to a sociological dead-end. The challenge they throw up does not mean denouncing them, nor welcoming them with open arms, but asking what they are doing and what they are making happen. How do we speak of the love of art, or of wine, or of any object or practice, taking this question seriously, without being satisfied by showing that it is really a matter of something else than what it thinks it is? No one reading Bourdieu's 1966 *The Love of Art* would have thought for a moment that the book would *actually* speak about the love of art: come on, you are not going to take the artwork "itself" seriously, are you? That would mean falling back into aesthetics, or letting actors seduce you with their talk, getting sucked into belief rather than showing its mechanism. Well, as it happens, taking the love of art seriously is exactly what I'm working on. The price, as we shall see, is that pragmatism is taken back to its founding principles, *pragmata*, the *agency* of things, and is not used as an alias to shift out of critical sociology without reconsidering the very narrow arena it had reserved for objects. And as I was saying, pragmatism thus conceived is far from

being an esoteric new fashion; it helps reconnect with common sense (a criterion of relevance essential in social science). In art, as well as in sciences and technology, objects count. What the sociologist lacks is perhaps something like a respect for the thing in itself.

Affordances, Situated Action, Extended Mind: Another Opening Toward Pragmatism

At the time, other traditions helped in the reformulation of these questions, this time coming from American extensions of action theory, a path that emerged from pragmatism and in turn helped us rediscover the latter. Authors such as James J. Gibson, Don Norman, Edwin Hutchins, or Lucy Suchman broke the model of instrumental action, with its intentions, means, and ends, in favor of a vision of situated action, extended mind, and distributed cognition. In contrast to our experience of Bourdieu, we had not been immersed from the beginning of our training in the language of *affordances*, those orientations of objects toward new uses whose possibility they nevertheless suggest.[31] Nor in situated action. Suchman's 1987 book was a revelation, really helping us to focus our project.[32] Similarly, Hutchins's 1995 *Cognition in the Wild* amazed us. This work came out of the American "history of technology" tradition, along with splendid books like Thomas Hughes's 1983 *Networks of Power* on the electricity grid, or works on material culture by impressive authors such as Chandra Mukerji.[33] Hutchins highlighted technical apparatuses and their linkages in a quite new way. These writers had considerable influence on STS in general, and on us in particular.

Here again, the fact that we were working at the CSI on both technology and culture helped us. The crossover to the questions posed by the knowledge of amateurs was explicit. For example, in an article cowritten with Émilie Gomart, we compared the attachments of amateur musicians with those of the consumers of drugs with whom Gomart worked.[34] The aim was to question the limits of ANT and of those intellectual trends that had been able to redeploy action outside of a linear and instrumental model. We wanted to extend the logic of their challenge, but by departing from the framework of action in which they were still situating themselves, in order to recognize the active role of objects and grasp other forms of agency beyond the active/passive dualism. We wanted to do so by, for instance, finding room for an active passivity or, in relation to musicians and drug "amateurs," for an action aimed at making oneself passive. That is the reason that, rather than referring to cause and effect, we went back to the word "attachments" that Cal-

lon had used in his 1992 analysis of markets, and which Latour, in the style of his example of the puppeteer and the puppet (who controls whom?), applied to a Mafalda comic strip in a very hard-hitting article on cigarettes and liberty.[35]

This American detour also allowed us to be more explicit about the different meanings of the word pragmat-*ic*. There is scarcely a sociologist in France today who doesn't claim this qualifier, but pragmatics understood simply as a theory of action is not really pragmat-*ist*. You can see the divergences when you look at the place that is given to objects. Now, according to this criterion, Hutchins, for instance, was already directly echoing philosophical pragmatism, in James's sense, by presenting the piloting of a boat as a collective task to which many kinds of machinery contributed, from the instruments to the layout of the control room to the water resistance and the radio—in short, by making use of the idea of the extended mind. I said James, because among the founding fathers, it was he who took *pragmata* most seriously in the battle against dualism; it was he who formulated the symmetry principle, *avant la lettre*, in the most radical way. The symmetry between the knowing subject and the world to be known is his problem as a philosopher, but he also defended this symmetry in relation to beings and things. I'll come back to this in my concluding example of amateurs. It is *pragmata*—thing-relations, plural and extended—that are at the heart of pragmatism, not practice, which doesn't require anyone to challenge the grand divide between human actions and the things they act upon.[36]

In this context, the discovery of James left us stunned. For example, he refuses to distinguish between things and their effects; he considers things and their relations to be made "of the same stuff."[37] Here we were reading one of the key themes of our own research—and one of the most controversial—written in someone else's hand.[38] After reaching its peak, pragmatism, that American philosophy, was looked down upon, even in the US, and was stifled by analytic philosophy. As far as the growing interest in this line of thought in France in the 1980s went, it focused on a kind of pragmatism that was largely rewritten to fit the occasion. Combining elements of enunciative pragmatics, analytical philosophy, and theories of action, it made very little reference to the arguments of pragmatism's founding fathers. So in the end, thanks to debates nourished by interested researchers, this shared framework nominated a new direction: pluralism, the rejection of exteriority, trials and investigations, public controversy and debate, the competence of actors.[39] At the CSI, it was above all the radicality of James's and John Dewey's propositions that surprised us, as if, even though these authors made little reference to the technology and objects on which STS had

been expending all its efforts, they had expressed, in advance, a vision of the world and of objects amazingly compatible with our own research ideas: objects that are pragmata, i.e., things "in their plurality"; and concerns, these things in common that emerge from public debate by being put to the test, without one being able to list a priori the stakes involved, the actors, or the arenas of discussion.[40] It was as if Dewey were confronted by contemporary problems, such as the environment, development, energy, sexuality . . . all of this in a world without exteriority, but plural and open, an expanding tissue of heterogeneous realities, but connected loosely, "still in process of making," as James nicely puts it.[41] This feeling that everything had already been said back then was no doubt partly illusory, giving the impression of a miraculous coincidence between the contours of James's "pluriverse" and the tentative articulation of ANT's ontology, especially with regard to the ideas of association and general symmetry. All that was missing were the ideas of inquiry and the concerned public, this time imported from Dewey, and we were in our STS universe: association, mediation, testing, *agencement.*

There was nothing of a backward-looking attitude in this return to pragmatism. It helped us make the shift that all of us at the CSI, with our different objects, were looking for: going from a theory of practice to an agency distributed across a multitude of links. No longer working with dualisms, with an instauration of things by humans against things, but toggling between the *assemblages* that Latour borrowed from Deleuze[42]; an agency dispersed in a "network-actor" (the term might have been better expressed this way around!), where, far from the binary opposition between humans and nonhumans, actors of very different natures form each other. As Latour says, this is to take the word socio- in the etymological sense of association, of link.[43] There are only relations, and this "there are only" is not understood in a critical and sociological mode (in fact these are *only* social relations), but in a full and ontological mode. Yes, things are themselves relations. This is the lesson of pragmatism.

Conclusion: Objects That Make Demands

Whether it is a popular song, a contemporary art installation, an opera aria, or a painting, once a work is created, it escapes from its author, it resists, it has effects or it doesn't. These effects change according to circumstance; the work lives its life.[44] This is precisely what attaches aficionados to such objects; the object has its own presence, it makes itself by making us. Works that we create, that we fabricate, that escape us and come back changed: what a mysterious relationship!

Amateurs are experts in this consequential testing of objects they are passionate about. They confront them; they do whatever is necessary to test and feel them (in French, *éprouver* has the two meanings), and they thus accumulate an experience that is always challenged by the way in which these objects deploy their effects. Rather than experts, as I said, they are experimenters; *éprouveurs* would be better, if there were such a word. It is with this perspective that I would like to conclude, by coming back to taste, taste as an appreciation of things that come about via the act of appreciation itself. Less an object of study, in other words, and more an experience to be approached.[45]

Amateurs are not believers caught up in the illusion of their belief, indifferent to the conditions under which their taste came about. On the contrary, their most ordinary experience is that of doubt and of hope. They are well placed to know, experiencing one disappointment after another, that there is nothing automatic about the appearance of the work or of their emotion. They are on the hunt; the experience of taste continually forces them to question its origin: is it my milieu, my habits, a quirk of fashion; am I being taken in by a too-easy procedure; could I be too much under the influence of so-and-so, or the plaything of some projection that makes me see something that isn't there? This question of the determination of taste is at the very heart of the formation of the amateur subject; it is a long way from being the sociologist's discovery of a truth that everyone has repressed. No one feels more than amateurs the open, indeterminate (and hence disputable, *contestable*) character of their object of passion. *De gustibus* est *disputandum.*

Amateurism is the worship of what makes a difference. It is the opposite of indifference, in the two timely meanings of the word. That is why I treat amateurs as little teachers of pragmatism. They know better than anyone (by truly living it) that there is no opposition between the need to "construct" an object—having permanently relied, to that end, on a body trained by past experience and the techniques and tastes of others—and the fact that, from the entanglement of criss-crossing experiences out of which the object arises, it is just as capable of surprising, escaping, or doing something else entirely. If the smallest brick is missing from this fragile construction, it all collapses. But they also know, like Souriau's sculptor, that, far from implying a reduction of the object to "only being" a reflection of those that make it, this is the very condition for it to emerge in all its alterity, and that in return it alters its "constructors." The passion of the amateur is not a state or an accomplishment; it is a self-dislocating movement that starts with the self, via a deliberate abandonment to the object. The word passion expresses it beautifully, even if one has to be careful of its grandiloquence. If it

is the right word, it is not because it adds a supplement of soul to our relations with things, but because it is the exact autochthonous expression of our specific relations to those things that *seize us.*

No one thinks of "passion" as passivity. If something is to seize you, then you have to "make yourself love" it. But we are no longer talking about mastery, action, or a theory of action. Passion is not this kind of calculation; it is being transported, transformed, or taken, and despite all these passive turns of phrase, it is anything but passive. For things to appear, something has to be made of them! One has to actively abandon oneself, as it were, to do everything so things can take their course. This was the gist of my article with Gomart. A strange grammatical construction, no doubt, but the very one that lays out the rules, and that the word passion refers to: to be taken/to allow oneself to be taken by whatever arises in the midst of experiencing things. This uncovers another, less expected aspect of the activity of amateurs: the ethical dimension of an obligation, of a sustained engagement with the things one loves, with oneself, with the quality of the ongoing experience. There is clearly a dimension of obligation in taste. An obligation to run the course, to respond to the object holding out its hand, to rise to the demand that its very qualities call forth. Souriau puts this beautifully when he talks about creators being obliged to do what their own work demands of them. This also implies that this obligation in relation to oneself and to things is an ethical task that certainly extends to the *social scientist* as well, when he values and makes more widely known the experience of amateurs. For my own part, I find that this spurs my interest in pursuing a sociology of taste. It is not just the amateur that the object puts under an obligation, but also the philosopher or the sociologist.

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Translated by Stephen Muecke
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NOTES

*   This text is based on an online interview with web philosopher Alexandre Monnin published in *SociologieS* (Hennion, "D'une sociologie de la médiation à une pragmatique des attachements," in Théories et recherches, *SociologieS,* June 25, 2013, available at http://sociologies.revues.org/4353).
1   See Antoine Hennion, "Review Essay: 2012. *Enquête sur les modes d'existence: Une anthropologie des Modernes,* de Bruno Latour," *Science, Technology, and Human Values* 38, no. 4 (2013): 588–94.
2   For my work on music, see Hennion, *The Passion for Music: A Sociology of Mediation,* trans. Margaret Rigaud and Peter Collins (1993; Farnham: Ashgate, 2015) and Hennion, "Playing, Performing, Listening: Making Music—or Making Music Act?" in *Popular Music*

Matters, ed. Lee Marshall and Dave Laing, trans. Rigaud-Drayton (Farnham: Ashgate, 2014), 165–18. For my work on amateurs, see Hennion, "Pragmatics of Taste," in *The Blackwell Companion to the Sociology of Culture*, ed. Mark D. Jacobs and Nancy Weiss Hanrahan (Oxford: Blackwell, 2005), 131–44; Hennion, "Those Things That Hold Us Together: Taste and Sociology," *Cultural Sociology* 1, no. 1 (2007): 97–114; Hennion, "Paying Attention: What is Tasting Wine About?" in *Moments of Valuation: Exploring Sites of Dissonance*, ed. Ariane Berthoin Antal, Michael Hutter, and David Stark (Oxford: Oxford Univ. Press, 2015), 37–56; Hennion, "Music Lovers. Taste as Performance," *Theory, Culture, Society* 18, no. 5 (2001): 1–22. For my work on attachments, see Hennion and Émilie Gomart, "A Sociology of Attachment: Music Amateurs, Drug Users," in *Actor Network Theory and After*, ed. John Law and John Hassard (Oxford: Blackwell, 1999), 220–47; Hennion, "Vous avez dit attachements? . . ." in *Débordements: Mélanges offerts à Michel Callon*, ed. Madeleine Akrich et al. (Paris: Presse de l'École des Mines, 2010), 179–90. Hennion, "Enquêter sur nos attachements: Comment hériter de William James?" in "Pragmatisme et sciences sociales: explorations, enquêtes, expérimentations," ed. Daniel Cefaï et al., *SociologieS*, February 23, 2015, available at http://sociologies.revues.org/4953.

3   See Akrich, Michel Callon, and Bruno Latour, eds., *Sociologie de la traduction: Textes fondateurs* (Paris: Presses de l'École des Mines, 2006).

4   See David Bloor, *Knowledge and Social Imagery* (London: Routledge and Kegan Paul, 1976).

5   Callon and Latour, "Unscrewing the Big Leviathan: How Actors Macrostructure Reality and How Sociologists Help Them To Do So," in *Advances in Social Theory and Methodology: Toward an Integration of Micro- and Macro-Sociologies*, ed. Karin Knorr-Cetina and A. V. Cicourel (New York: Routledge, 1981), 277–303; Latour, *The Pasteurization of France* (Cambridge, MA: Harvard Univ. Press, 1988); Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Cambridge, MA: Harvard Univ. Press, 1987); Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford: Oxford Univ. Press, 2005); Callon, "Some Elements For A Sociology of Translation: Domestication of the Scallops and the Fishermen of St-Brieuc Bay," in *Power, Action and Belief: A New Sociology of Knowledge?*, ed. Law (London: Routledge and Kegan Paul, 1986), 196–233; Akrich, "Comment décrire les objets techniques?" *Technique et culture* 9 (1987): 49–64.

6   Knorr-Cetina, *The Manufacture of Knowledge: An Essay on the Constructivist and Contextual Nature of Science* (Oxford: Pergamon, 1981); Harry Collins, *Changing Order: Replication and Induction in Scientific Practice* (1985; Chicago: Univ. of Chicago Press, 1992); and Bloor, "Anti-Latour," *Studies in History and Philosophy of Science* 30, no. 1 (1999): 113–29.

7   In his first fieldwork, between 1973 and 1977, Latour was already following a "symmetrical" program, studying Ivory Coast researchers as if in a modern laboratory, studying the Salk Institute in San Diego without assuming its scientific character. Basically just like savages! Latour and Steve Woolgar, *Laboratory Life: the Social Construction of Scientific Facts* (London: Sage, 1979). See also his references to André Leroi-Gourhan or Gilbert Simondon, and to the journals, *Technique et Culture* or *Technology and Culture*.

8   As well as, from the 1970s, one of them meeting with Law, the other with Woolgar.

9   The journal *Raisons pratiques* published an issue entitled "Les Objets dans l'action: De la maison au laboratoire," ed. Bernard Conein, Nicolas Dodier, and Laurent Thévenot, 4 (1993), while, drawing on the activities of experts and counterfeiters, Christian Bessy and Francis Chateauraynaud set up the question of the qualification of objects in terms of holds and markers [*prises et repères*]. Bessy and Chateauraynaud, *Experts et faussaires: Pour une sociologie de la perception* (Paris: Métailié, 1995). See also the positive reception in France of Arjun Appadurai's 1986 collection, containing in particular Igor Kopytoff's "cultural biography of things." Appadurai, ed., *The Social Life of Things: Commodities in Cultural Perspective* (Cambridge: Cambridge Univ. Press, 1986).

10   For a take on the evolution of this field, see the volumes edited after the 4S conferences, the *Society for Social Studies of Science*, http://4sonline.org/, http://stshandbook.com/. Founded by a small group of colleagues in 1975, today the membership comprises approximately 1,200 individuals and covers vast domains that are closer to *critical studies*, and sometimes a long way from the initial field studies on technology.

11   Latour, *Politics of Nature: How to Bring the Sciences into Democracy* (1999; Cambridge, MA: Harvard Univ. Press, 2004); Vololona Rabeharisoa and Callon, *Le Pouvoir des malades: L'Association française contre les myopathies et la recherche* (Paris: Presses de l'École des Mines, 1999); Callon, Yuval Millo, and Fabian Muniesa, eds., *Market Devices* (Oxford: Blackwell, 2007).

12   Callon, Millo, Muniesa, *Market Devices*; Latour, "Factures/Fractures: From the Concept of Network to the Concept of Attachment," *RES: Anthropology and Aesthetics* 36 (1999): 20–31; Hennion, "Vous avez dit attachements?"; Hennion, "Enquêter sur nos attachements."

13   I will take up later the example of the related but distinct notions of translation and mediation.

14   Latour, who had already worked for some years with Callon, came to the CSI in 1982.

15   Raymon Boudon and Maurice Clavelin, eds., *Le relativisme est-il résistible? Regards sur la sociologie des sciences* (Paris: PUF, 1994); Pierre Bourdieu, *Science of Science and Reflexivity*, trans. Richard Nice (Chicago: Univ. of Chicago Press, 2004).

16   Hennion, *The Passion for Music*.

17   The double quarrel between the sociology of culture and aesthetics locked them into a sterile debate that they can scarcely get out of.

18   Latour, *On the Modern Cult of the Factish Gods*, trans. Catherine Porter and Heather MacLean (1996; Durham NC: Duke Univ. Press, 2010).

19   Hennion and Latour, "Objet de science, objet d'art: Note sur les limites de l'antifétichisme," *Sociologie de l'Art* 6 (1993): 5–24; and Hennion and Latour, "How to Make Mistakes on so Many Things at Once—and Become Famous For It," in *Mapping Benjamin: The Work of Art in the Digital Age*, ed. Hans Ulrich Gumbrecht and Michael Marrinan (1996; Stanford, CA: Stanford Univ. Press, 2003), 91–97.

20   Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Illuminations: Essays and Reflections*, ed. Hannah Arendt (1955; New York: Schocken, 1968), 217–51.

21   Hennion, "Those Things That Hold Us Together," 106.

22   In French, "les faits sont faits." See *pragma*, Greek for thing. Latour reminds us that it is the same in all languages: *res*, *Ding*, thing, *chose/cause* in French, the word that, designating assembly, the public thing, the judicial case, the common cause, in other words collective discussion, also names things in their most material, nonhuman sense.

23   Bourdieu, "The Production of Belief: Contribution to an Economy of Symbolic Goods," trans. Nice, *Media, Culture, Society* 2, no. 3 (1980): 261–93.

24   More precisely, for critical sociology, they are everything, absolute, when they relate to science, and nothing, pure arbitrary signs, when they relate to culture.

25   If we gauge the fruitfulness of a field by the way it can set up harmful debates, then the virtue of STS is in having put the "epistemological chicken" of Harry Collins and Steven Yearley on the table. Collins and Yearley, "Epistemological Chicken," in *Science as Practice and Culture*, ed. Andrew Pickering (Chicago: Univ. of Chicago Press, 1992), 301-26. See also the reference of Callon and Latour to the baby and the bathwater (alluding to the Bath school) in their response to Bloor's "Anti-Latour" (the same journal issue presented Bloor's attack, Latour's response, and the counter-response); and the positions subsequently taken by Barry Barnes, Collins, Pickering, Susan Leigh Star, Malcolm Ashmore, Lynch, and of course, Ian Hacking, who put the question bluntly in *The Social Construction of What?* (Cambridge, MA: Harvard Univ. Press, 1999).

26   Latour, *Reassembling the Social*.

27   Bourdieu, Alain Darbel, and Dominique Schnapper, *The Love of Art: European Art Museums and their Public* (1969; Cambridge: Polity, 1997); Bourdieu, *Outline of a Theory of Practice*, trans. Caroline Beattie and Nick Merriman (Cambridge: Cambridge Univ. Press, 1977); Bourdieu, *Distinction: A Social Critique of the Judgment of Taste*, trans. Nice (London: Routledge, 1984).

28   Hennion, "The Price of the People: Sociology, Performance, and Reflexivity," in *Cultural Analysis and Bourdieu's Legacy*, ed. Elizabeth Silva and Alan Warde (1985; London: Routledge/CRESC, 2010), 117–27.

29   Rather, let us speak for the moment of reinsertion into practices. Pragmatism (I will come back to this question) is not a theory of practice, but a taking into account of things, which is a different matter entirely.

30   "Believing is believing that others believe," as Michel de Certeau wrote very astutely. Michel de Certeau, "Croire: Une pratique de la différence," *Documents de travail et prépublications* no. 106 (Centro Internazionale di Semiotica e di Lingüística: Università di Urbino, 1981), series A, 1–21.

31   James J. Gibson, *The Ecological Approach to Visual Perception* (Boston: Houghton Mifflin, 1977); Donald A. Norman, *The Design of Everyday Things* (New York: Doubleday/Currency, 1988).

32   Lucy A. Suchman, *Plans and Situated Actions: The Problem of Human Machine Communication* (Cambridge: Cambridge Univ. Press, 1987).

33   Chandra Mukerji, *From Graven Images: Patterns of Modern Materialism* (New York: Columbia Univ. Press, 1983); Mukerji, *Territorial Ambitions and the Gardens of Versailles* (Cambridge: Cambridge Univ. Press, 1997).

34   Gomart and Hennion, "A Sociology of Attachment," 220–47.

35   Hennion, "Vous avez dit attachements?"; Callon, "Sociologie des sciences et économie du changement technique," in *Ces réseaux que la raison ignore*, ed. Akrich et al. (Paris: L'Harmattan, 1992), 53–78; Latour, "Factures/Fractures," 20–31.

36   Hennion, "Enquêter sur nos attachements."

37   In French, "de la même étoffe," from the famous Essay 8, "La Notion de conscience." William James, *Essays in Radical Empiricism* (New York: Longmans, Green and Co., 1912), 233.

38   If James is not the first name to come to mind when one thinks of STS (or even of ANT or the thought of Latour or Callon), I am happy to say that during the ANT epoch, when we were talking about translation and mediation, we were Jamesian without knowing it. To say this is not to insult those who ask to judge a philosophy less by its positions than by the effects and uses it can give rise to!

39   Luc Boltanski and Thévenot, *On Justification: Economies of Worth* (1991; Princeton, NJ: Princeton Univ. Press, 2006); Dodier, *Les Hommes et les machines: la conscience collective dans les sociétiés technicisées* (Paris: Métailié, 1995); Bessy and Chateauraynaud, *Experts et faussaires*; Céfaï and Isaac Joseph, eds., *L'Héritage du pragmatisme: Conflits d'urbanité et épreuves de civisme* (La Tour d'Aigues: Éditions de l'Aube, 2002); Céfaï, *Pourquoi se mobilise-t-on? Les Théories de l'action collective* (Paris: La Découverte, 2007).

40   James, *The Meaning of Truth: A Sequel to Pragmatism* (New York: Longmans, Green, and Co., 1909), 210; John Dewey, *The Public and Its Problems* (New York: Holt, 1927).

41   James, *A Pluralistic Universe: Hibbert Lectures at Manchester College on the Present Situation in Philosophy* (New York: Longmans, Green, and Co., 1909), 76; James, *The Meaning of Truth*, 263.

42   Callon prefers, for his part, to go back to *agencement*, the original French word for the English term assemblage, sometimes picked up in French. Callon, "Qu'est qu'un agencement marchand?" in *Sociologie des agencements marchands*, ed. Callon et al. (Paris: Les

Presses de l'École des Mines, 2013), 325–40. Assemblage being too supple, it diminishes the active dimension of *agencement* and the subtlety of the adjustments required between humans and things.

43   Latour, *Reassembling the Social*.

44   Alfred Gell, *Art and Agency: An Anthropological Theory* (Oxford: Oxford Univ. Press, 1998).

45   Hennion, "Those Things That Hold Us Together," 97–114; Hennion, "Vous avez dit attachements?"