Anne-Françoise Schmid Sciences, Philosophies, and the Question of Borders

Bionote: Philosopher and epistemologist, Anne-Françoise Schmid works on the multiple interactions between sciences and arts, between epistemology and the multiplicity of philosophies. These dynamic relationships can only be understood and systematized by a science of terms and relationships, a modality of Design. AFS sees in philosophical invention, rather than a result of criticism, the effect of a conception of and in philosophy, which occurs when philosophy touches another discipline. The Design, rather than a method external to the philosophy, allows it to manifest its construction in its links to the other knowledge, doctored or indoctrinated. Philosopher among scientists (EPFL, INSA, INRA, MinesParisTech), more recently philosopher among artists (vimeo film Letre, Philosophical Scripts for a festival of lost films (Gwangju), collaborations with Robin Mackay, Benoît Maire, Alice Lucy Rekab, Gallien Déjean, Ivan Liovik Ebel). A specialist in Poincaré and editor of Russell and Couturat, she has taught philosophy and epistemology at the University of Paris Ouest Nanterre, and mathematical logic at the University of Geneva. She has been teaching at the New Center of Research and Practice since 2016. Her problem is the question of how to avoid exclusions, exclusions of emerging scientific methods in science in view of what she saw in laboratories and research centers, exclusion of philosophies in the name of the supremacy of one of them. To this end, she has manifested the hypotheses of classical epistemology and has made extensions of them to take into account the generalized interdisciplinarity of contemporary sciences (in collaboration with Jean-Marie Legay, biologist, Muriel Mambrini-Doudet, biologist, Armand Hatchuel, management sciences, Nicole Mathieu, geographer, Maryse Dennes, Russian philosophy). At the same time, she works on a philosophical style not in but with philosophies considering their multiplicity (Philo-fiction, La revue des non-philosophes).

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Abstract: This essay contributes in part to the discussion of the concept of the border [frontière] and its relations between philosophies and sciences present within the work Épistémologie des frontières. It suggests that borders function as both a separation and a union between the domains of philosophies and sciences in their multiplicity. Borders are determinant in the times of interdisciplinarity, and such investigations are necessary because the accustomed links between philosophies and sciences can no longer be assumed. This essay proposes some hypotheses concerning methodology and the relation to the real to exercise a modelization as the articulation of multiple points of view. Modelization allows for the invention of democratic pragmatics of philosophy/philosophies towards a global re-evaluation of the relations that disciplines, such as the sciences and ethics, share with philosophy.

Keywords: borders, philosophies, sciences, epistemology, ethics, modelization, pragmatics, philo-fiction.

General Hypotheses

Habitually¹, when one examines the question of the relations between the sciences and philosophy, "science" is in the plural and "philosophy" in the singular. Once science assumes a relation to philosophy, it identifies the latter with a function that limits its multiplicity. The philosophy of the sciences is obviously a discipline, or a domain, that explains the singular. But there is something more, and it is that one knows the idea of a philosophical multiplicity will not be developed, whereas philosophy, in the classical sense, is declined by a series of proper names. There is a reduction, an impoverishment. Either one does philosophy of the sciences, by way of attaching it to fundamental concepts, as if one could deal with

¹ [Any and all errors are those of the translator. Footnotes that are translator's own and/or include any further information will be noted with square brackets – Trans.]

a kind of neutrality or philosophical conviviality; or one exposes its concepts by being inspired by authors such as Poincaré, Russell, Duhem, Meyerson, Popper, etc. In my opinion, one can also proceed otherwise, and alter the way one views the interactions between the sciences and the philosophies.

Hypothesis A

The question of the borders between philosophies and sciences can be proposed under the following hypothesis: there is a systematic, though non-direct, line between the way in which "one" philosophy constructs its relations to the sciences and the fashion in which it thinks its relations to other philosophies. It is a methodological hypothesis which no longer accepts the spontaneous practice that consists in opposing one philosophy to another, without there being another, more positive usage of this opposition. One can generalize it in every discipline which overdetermines philosophy, but with different effects. This hypothesis can only truly be understood with Hypothesis B.

Hypothesis A is subjacent to the idea of interactions between philosophy and epistemology. One can obviously create an epistemology by supposing its relative autonomy in relation to philosophy or philosophies. But it also takes work that attempts to comprehend the relations between sciences and philosophies, between epistemology and philosophy, between the latter two and the history of the sciences. This distribution is theoretically problematic, because the classical approach of philosophy requires that the critique or the description of a philosophy allows for a new philosophy, which seems to render impossible an "objective" characterization of philosophy. It would only serve, then, the general horizon for the work of epistemology and the sciences.

Hypothesis A is all the more difficult to hold, due to the fact that the concept of the border is not, on the surface, the same in philosophy and science. We will attempt to offer a method that will render this hypothesis plausible and effective.

The Concepts of the Border in Philosophy and Science

In philosophy, the concept of border is double, and not only for the habitual reasons whereby one says that a border is at once internal or external, or that it reunites or separates in the same gesture. These doublets are of a philosophical origin, and continue, deservedly, to be developed and refined. But they are the effects of one aspect linked to the constitution of philosophies themselves—which complicates this first approach. It is such that a philosophy also constitutes itself through the critique of other philosophies or aspects of the tradition. This critique has the effect of duplicating the philosophical concepts at the interior of a system. Every notion will have its double. The border is what separates and unites, at once limit and boundary. The empirical has two usages: in the negative, it is what transmits the critiqued tradition – it can no longer serve as transcendental; and, more positively, it is what responds to the transcendental of the new philosophy. Furthermore, this situation still comes to complicate itself in the relationships of philosophies with the exterior disciplines with which it comes to form borders. To hold all of this together, one must suppose that philosophy prevails over philosophies, and nearly all of the philosophers think that their practice of philosophy is better than that of the others, that it takes a better account of what is done in the sciences, in the history of the sciences, in aesthetics, etc., despite the apparently spineless consensus that there is a plurality of philosophies. This paradox can reveal itself through historical "dramascules," 2 as recently as the Sokal Affair. One habitually accepts the idea that one must believe in what one defends. But the result of this apparent normality is that the particular situation of philosophy is not theorized enough: where the border is double, what separates philosophy from other disciplines, what separates one philosophy from another, and what unites these two decisions. Some philosophies are not arithmetically comparable, for they cannot be reduced to rigorously distinct unities, while scientific theories undoubtedly enjoy a cleaner relative autonomy. To a philosopher, what will be the border between Deleuze-philosophy and Russell-philosophy, or between Derrida-philosophy and Wittgenstein-philosophy? To take one "case" treated for almost twenty years, it's not easy to take a position, at least by being simply

² According to the title of a series of short pieces by Thomas Bernhard and published in *L'Arche* (Paris, 1991).

dogmatic, that is, to believe that each proposition that one utters [émet] returns to the systematicity of one's own thought. To make use of a Leibnizian concept, one can construct "perspectives" where Russell and Deleuze would be very close or very far, or see Derrida and Wittgenstein as extreme cases without ties, or, even, as the repetition of the same to a proximal historical accident. These perspectives are the fantasies of philosophy – a fantasy which here means that the orders can change in degree, and not that it is meaningless or has no objectivity. It is this fantasy that allows philosophical positions to communicate – that is, to share their role [charge] as philosophy, a bit like ideologies allowing for social life. One can describe in many ways the relations of "one" philosophy to one "other" philosophy, but one will utilize, according to the cases, or types of relations which engage a particular philosophical interpretation, as we have already done with Derrida and Wittgenstein, by making use of Nietzsche, or moreover, of the basics of so-called analytic philosophy. Dealing with a border between "two" philosophers still requires a philosophical gesture of intervention that could be distinguished as yet "another" philosophy. It is for this reason that the concept of the "death" of philosophy, which is absolutely classical and undoubtedly part of philosophy, would disappear in our practicing of thought. Philosophy continues and will continue to exist, and Pequy's idea that a philosophy that does not "come" is missing eternally, will be eternally lacking and can always be understood as contemporary.

Thus, the question of intra-philosophical borders is conceptually impossible to regulate, because when one seeks to theorize it, it gives place to a new border or a new philosophy. We have pointed out repeatedly that it wasn't possible to define philosophy because a definition would automatically arise from a particular philosophy, and therefore the definition would be partial, etc. This is what the concept of the border in philosophy does, undefined and allowing continuation: it does not reveal the concept of borders in sciences — at least when one considers, also partially, that the concept of borders in the sciences is imported from philosophy. The philosophies are very conscious of this situation, and, in the 20th century, a certain number of them investigated notions capable of resisting the crossing, the continuous transformation, from one philosophy to the other. The notion of the ordinary, or, even better, the idea of

pragmatism, or that of the blends of realism and pragmatism, contribute to this resistance. These notions are absolutely fundamental, but they deserve being rethought in a theory of the multiplicity of philosophies. This modifies the very concept of philosophy.

In conclusion, it will take a conceptual treatment of these borders without constituting a new philosophy. What was previously said allows us to give form to the problem: 1) One must be able to give oneself the theoretical means of a description of philosophy; 2) one must be able to suspend their own opinions and beliefs of the type "I am Derridean," "I am 'analytic'," etc.

The theoretical means suppose that one generalizes philosophy and that they remove its claims vis-à-vis the real. This will allow us to give a theoretical (rather than philosophical) description. It is one of the objects of non-philosophy, the "non-" obviously being a generalization, analogous to what has existed for non-Euclidean geometries. This is Hypothesis B, which supposes that the doubt of the unity of philosophy, or, at least, the opposition and the link between unity and multiplicity, has a cause or a reason: the real.

Hypothesis B

The hypothesis is that the real "precedes" philosophy. Either it is "indifferent" to philosophy, or, for that matter, that it is the "cause," that it has primacy over philosophy, and not priority, which would engage the real in a philosophical order, or that it has a certain effect on philosophy, although it cannot be a hierarchical domination. All of these terms are dissatisfying, since the real/philosophy relation is no longer thought as philosophical. All that is possible is to take back the terms of philosophy, to place them into another syntax. Philosophy does not co-determine the real, it co-determines other philosophical interpretations of the real. All of this is perhaps philosophizable, but all of it does not have to be philosophized. This can seem a banality, nevertheless, all sorts of beliefs disclose such presuppositions, for example, the one that sees the sciences progressively leave philosophy by way of the objectivation of the formulation of problems... Therefore, one supposes that philosophy does not directly touch the real. It is, however, very important, as a kind of form of sensibility of what we perceive of the world and ideas, a form, too, of the conceptions of action. But, in the absolute sense, there is no reason that one philosophy is more correct than another, even when, in certain situations, the concepts of the one could be more pertinent or richer than those of another. But, that's something to rethink.

Let's move on to the question of scientific borders. It has an apparently more controllable approach, because certain aspects can be treated through logic. One can say that the domain of a theory is determined by its principles. If I name "force" something which is incompatible with Newton's principles, one will think that this conception of force comes from the domain of mechanics. The mathematics and the hypothetico-deductive method can provide the means of distinguishing among the acceptable statements in a theory. There are several remarks to make. First of all, one isn't certain that the notion of the border can be a pertinent notion to describe this characteristic of theories (is it necessary to add a supplementary notion?), it is, at least, a question that we can leave aside for the time being. In the second place, the example taken here speaks to a paradigmatic case (mechanics), while the fundamental problem concerning the borders is the compatibility between theories. In the sciences, it takes up an equally technical form, the research of models. We know that Maxwell spent a lot of time constructing the mechanical models of electrical theory. In order for the model to exist, the compatibility of his theory with mechanics must be ensured and thus, indirectly, its validity. The undoubtedly maladjusted term of "border" in the sciences engages some meta-scientific distinctions that are susceptible to being treated by logical means. It is not, as in philosophy, a theory that is auto-interpreted by its own continuation, and which seeks, in the same movement, both separation and proximity.

Concerning the sciences, the question of the border has equally been treated by the research of criteria, to which a good part of 20th century epistemology was devoted to. This research gave place to a quantity of distinctions in which, I think, they remain useful. But it is ultimately weakened because the idea of universality, on which rests the hope of finding a criterion, no longer appears as pertinent. The research of criteria began with the finding that mechanics was not at all physical, and that it was gradually necessary to broaden

the conception that one had of science, even beyond physics – it is normal that, gradually, the historically dated idea that one has of science would no longer appear as something that requires criteria. It is one of the aspects of the current sociologization of the sciences and their relativist interpretation. Every universal criterion would appear as metaphysical, be it one concerning science or philosophy. The idea of paradigm, or research programme, may have delayed the most extreme interpretations for some time. My thesis is that it is possible to replace this banalization by a consilience which would be a portion of the disparate side of disciplines.

On the question of borders in the sciences, the logical and metalogical questions have therefore often been blended with the metaphysics of the social sciences, as if one could know that science would depend on absolutely heterogeneous diverse disciplines. A banalization has resulted from all of these differences: sciences are a social activity like any other, wherein the practitioners operate with a specialized language.

One can no Longer Naively Think Philosophy and Sciences without Hypotheses

To take an analogy, we are in an "epoch" similar to what was lived in geometry, where one first had thought the points, laws and planes as givens, then as a system of operations, and then as a system of axioms.

If one admits the sciences and philosophies as givens, then one excludes many phenomena on the cartography of current knowledges. For example, one cannot clearly comprehend what modelization and conception bring to the horizon of contemporary knowledge. Why? Because one thinks them according to theory, and the latter according to mechanics, that is, according to a chronological and nonproblematic line of historical passage. Or, rather, one acts as if that which brings forth a problematic was the consequence of chronology. The very essence of treating each element in a relatively autonomous fashion is reinscribed in a tradition where one notion follows another. We propose to radically distinguish what is historical and what is epistemological. This doesn't remove the importance of any of the disciplines and allows us to construct connections between them which are not exclusively of the order of chronology.

The state of current epistemology, which, by the objectivity of theories, has passed onto the generalized idea of technology encompassing the sciences, and, then, to a sociological and relativist conception of the sciences, partially holds to the continuities that one admits implicitly between the chronology and the problematic.

Their separation supposes that one is no longer content with what gives us chronology in order to comprehend the concept of each order or field of knowledge. For this, one is in need of a hypothesis. The sciences are not what has been taken away from philosophy on the occasion of objectivations, a type of reasoning in following from a semi-transcendental illusion. Technology is not only a reversal and an intensification, in the Nietzschean sense, of theory/experience relations, but a new type of blend that one must attempt to think in its specificity. Relativism is not only the expected continuation of the critique of the notion of objectivity. What we want to change, here, is the way of thinking the relations between the traditions and contemporary problems by suspending the ready-made connections that one admits among them. By proceeding thusly, we will see that many notions are absent in the dictionaries of philosophy and the history of sciences, because they represent, in the same movement, a historical and systematic point of view of science which excludes many possibilities. For example, in the Lecourt dictionary from Presses Universitaires de France, the entries: "hypothesis," "modelization," "conception," "objective," "criterion," "problem," "simulation," "interdisciplinarity," "non-" (as in non-geometry, non-economy, etc.) are absent. Such a dictionary should take note that modelization is one of the most common practices of the current sciences. It does not suffice to treat models through theories – syntactic models, semantic models, pragmatic models – in order to comprehend modelization and the new functions that it implies for theories themselves. What is the identity of science through all of these practices? The research of criteria is no longer apt to approach this question, because it would have been elaborated in the horizon of hypothetico-deductive theories and methods.

One must now admit that one can only work through hypotheses, for the determination of what philosophy and science are, despite the philosophical tradition which, almost entirely, has given an absolutely secondary and not philosophical role to hypotheses (with

the notable exceptions of Leibniz and Russell). To work with hypotheses simply signifies that the identity of sciences or philosophies are not given directly by their historical state. This does not mean that history is less important, but that one must think, each time, its relations to philosophy or the sciences. However, the formulation of criteria is not adapted, because it is taken in the contradiction of parting from an already complex particular state to be the touchstone for states which are not yet known. Now, one knows that science is multiple and polyform, even if one also knows that it continues and will continue to make usage of classical methods.

In what concerns philosophy, let's admit that the one we practice is only one among many, regardless of whether, in line with our preferences, we pursue a historical work or a contemporary engagement with our philosophy of choice. If we suspend the idea that our preferred philosophy has an effect of direct co-determination on the real, we can attempt to determine the pertinent traits that characterize the philosophies. This presupposes a considerable change in syntax. Instead of supposing that the notions are transformable into one another through dialectics, through topological recurrence, or through the repetition of the Same, all of which are ways of doing which give place to a new philosophy in the very effort of defining it, we will admit that the terms of a philosophy can be affirmed according to the cases as either identical or completely distinct. We cut every possibility concerning what we have called internal relations – not that we negate them, but we make them a term beside others, or a term identical to another. This method is inspired by François Laruelle's works. Through this conception of terms, it is possible to conceive a "modelizing" of philosophy, which describes philosophy without transforming it into another one. Analytic philosophy has been very important for the critique of the transition of notions into one another and for the construction of very strong relations with logic and the sciences; it has allowed for the circumscribing of this problem. But this isn't sufficient. The notion of the ordinary, which is one of its instruments, is thought in philosophy, with its critical means, and in opposition to the supposed speculative philosophies. On the other hand, the continental philosophers of the last century, in line with Nietzsche and eventually Heidegger, have highlighted, at a superior level, the knowledge of the constitutive gestures of philosophy in its aspects of a system. I am referring here to the so-called philosophies of difference, Deleuze and his conception that one could call serial, seeking univocity of the multiplicities of philosophies – A Thousand Plateaus – but also to Derrida, the most "cubist" of our philosophers, who created fragments of half-philosophies, allowing us to see what remains habitually invisible, The Truth in Painting, leaving us a knowledge of philosophies. Who could believe after reading Derrida that one can found a philosophy on a particular science? But philosophy continues. So, Badiou constructed his on the coincidence of the void and set theory, Being and Event. Michel Henry, through his absolutely radical conception of the transcendental, allowed us to comprehend the particularities of philosophical returns, I am the Truth, in a way that one could call, at once, close and contrary to the analytic philosophers. Bachelard, through his idea of a poly-philosophy, has made us attentive to the idea that the philosophical transitions between notions do not take place between contraries exclusively in the linear sense, by way of a "surface" – which is a modern form of the Platonic chôrα, or anticipated by Deleuzian plateaus or deserts. In Bachelard, this idea was implied by the force of the "non," The Philosophy of the Non; in Deleuze, through the force of the "yes" or "rhizome." But all of these works are philosophies or semi-philosophies, or philosophies of difference, so to speak, or the Same of philosophy, etc., and assume, in a way, that they touch something of the real, or still, that the real is their limit – therefore reviving the debate among the opposites [contraires]. Russell, on the occasion of the death of William James, wrote, with so much wisdom on philosophy, that it was "the tone of a subject in which agreement is necessarily rarer than esteem,"3 and briefly indicated the opposing directions to which one such situation could lead.

What is the type of these hypotheses? Minimal in their formulation and complex in their possible effects. They determine postures and orders, rather than disciplines. What do I call this order? This notion follows a conjecture.

A Conjecture

I suppose that the blends that we observe – and, in the empirical, we observe mixtures of sciences, philosophies, technics, aesthetics, and ethics – are not necessarily explained by the blend they constitute. To explain mixtures by way of mixtures is the essence of relativism as it concerns our environment. I do not negate the mixtures, they are the only thing that one can observe, but I propose the conjecture that one can make hypotheses which do not raise from these blends and assume, as a method and description, a set of minimal characterizations of the non-blend from as many orders as one could name: "science," "philosophy," "technics," "ethics," etc. There are blends of these orders, the most interesting for us being the "philosophy of sciences" and "epistemology," wherein the object is no longer the science or the sciences, but a mélange of philosophy and science. In my opinion, the battles between epistemologies ensue from the conviction that each of them has science for an object, although, in fact, each of them equally has for an object partially unelucidated relations between philosophies and sciences.

What do these hypotheses allow for? To have a multiple point of view, at once on philosophies and on their relations with other disciplines. To retain its judgment over such or such philosophical position, but to comprehend – without transparency – the most different positions in their variable and multiple connections. To allow for a usage of philosophies, a pragmatics of philosophies, which cannot simply be the adherence to a pragmatist philosophy. It does not interest me to say that I am Russellian or Nietzschean. In contrast, it is important for me to be able to make use of Russellian or Nietzschean positions in some conjunctures, sometimes in a combined fashion. It is what I call the "modelization" of philosophies. This modelization comes to profoundly modify the idea of the border in philosophy. Modelization supposes that the terms among which the philosophies pose as "internal relations" can be treated as identical or absolutely distinct. Thus, it will equally have effects over the borders between philosophy and other disciplines. It is in this context that I will try to discuss the idea of the border.

This obviously presupposes a position that cannot only be philosophical in the first degree, but which also bears on philosophy itself.⁴ It is

³ Bertrand Russell, *Essais philosophiques*, trans. François Clémentz and Jean-Pierre Cometti (Paris: PUF, 1997), 52. [In *Philosophical Essays*, New York: Routledge, 2009, e-book p14. Quote is provided from the original English. Instead of the French translation which appears in the original of this article, I have used the original quote from the English source. – Trans.]

⁴ See Pierre Jacob's article on memory in the special issue [Hors-Série] of La Recherche (2001), explaining that human memory functions thanks to its meta-representations.

an utterly classical position, in the sense that every philosopher has a point of view on philosophy, and an elaboration of a philosophy contributing to the constituent "gestures" of philosophy. But it is a different position insofar as it does not give place to the creation of a new philosophy, but to the generalization of the concept "philosophy"; one can then liberate the function "philosophies" in relation to the function "sciences."

How does one think the scientific multiplicities? How does one articulate them with philosophical multiplicities? These questions supposes that one admits that there is philosophy and philosophies, that there are sciences, and that the allowed dissymmetrical relations among them – science brings to knowledges, to philosophy, a commentary on sciences, eventually a supplement of a soul or ethics for them – are not the sole possible form of their relations. Philosophy is a technique of generalities. This doesn't mean that it can be more general than the sciences, and/or that it overarches them, it does not void them of all knowledge; and, as for science, it does not lack thought...

This conception supposes a democratization in the thought of the relations between philosophies and sciences. The practice of this democracy or non-hierarchy is modelization. The hypothesis of the primacy of the real is already a modelization of philosophies. It does not modify the theory, but its functions, which enrich each other and the concept of borders. The whole problem will be of thinking the relation, or the leap between, the diverse knowledges entering into modelization.

In effect, what is a modelization? It is an articulation of models – which, most of the time, does not arise from one singular discipline, or singular model. It relies on the terms among them. Let's suppose that each of these terms can be a model: we then have a modelization. The models are always waning in the plural. Modelization allows us to articulate, among them, heterogenous models of different quantities and nature. In the practice of the sciences of engineering, it is possible to integrate qualified parameters of ethics in their conceptions, which is a form of modelization.

To model, it takes the equivalent of what constitutes the domain for theory, as it happens, an "objective," for which one must construct a scientific concept. It designates a point of convergence independent from domains, thus allowing different models to converge. It is a point on a surface, rather than a surface on which one would designate events. Modelization, as per its objective, is not exclusive with regard to theories, but it imprints their maps of domain according to another logic.

How does one articulate these diverse knowledges if their coherence is not guaranteed by the logic of a theory? Stephen Jay Gould has taken up William Whewell's term "consilience" (1840), which the latter had created to comprehend the "consilience of inductions," in order to postulate how a theory must be able to explain the heterogeneity of disparate facts, which are always stronger than the indefinite repetition of the same class of facts, and how it makes it possible to make the "leap" among different facts. Gould transposed this idea to allow for the thinking of the sciences and humanities together.⁶ I would take another step in this transposition: Consilience, without reduction, is what permits modelization. Reduction is a very useful technical procedure because it allows us to manifest what was new in a theory, it shows that one can make do with a formalism, but it is not a metaphysical or philosophical explanation. In contrast, wanting to make reduction a goal leads to dogmatisms which can lead, in some cases, to dangerous flattenings (socio-biologism, etc.). Modelization allows for the analysis of components in such a way that they are recombined with important degrees of liberty for the indirect description of worlds, sciences and complex philosophies, that is, it does not depend on one field of knowledge alone.

The theories, for the sciences, for the philosophies, and for philosophy, could have this function in modelization which guarantees, at least partially, the coherence of necessarily disparate aspects of modelization.

⁵ This is the way in which Russell reasoned concerning series – each term of a series is itself a series.

⁶ Stephen Jay Gould, *Le Renard et le Hérisson: Comment Combler le Fossé Entre la Science et les Humanités*, trans. Nicolas Witkowsky (Paris: Le Seuil, 2005), 194 and 199-213. [*The Hedgehog, the Fox, and the Magister's Pox: Mending the Gap Between the Sciences and the Humanities* (New York: Harmony Books, 2003) – Trans.]

A Pragmatics of Philosophies

Compatible with the idea of modelization, I propose a pragmatics which would not be a philosophical point of view, but a usage of philosophical positions according to conjunctures and blends of sciences/philosophies/etc. From a methodological point of view, the usages of philosophies or fragments of philosophies signify that all of our descriptions are indirect. It is possible to make use of concepts from the philosophy of sciences as models of application for epistemological concepts. One must invent philosophies, on the condition that they do not confer themselves with authority over the real, in a way that gives new means for indirect descriptions of the real, science, technology, etc. They are what one calls philosophical fictions, non-scientific modelization or, still yet, "philo-fictions," Laruelle's term, who has published some examples in the form of experimental texts.

Therefore, the question of borders would be transformed: it would only exist in the philosophical principles as a means of orientating oneself in thought, when one allows oneself a horizon, when the real is seen at the limit of philosophy – that is to say, in the practice of the/a philosophy. But when one no longer exercises philosophy as a kind of authority over the real, for the real is no longer at the limit of philosophy but just a point which precedes it (truly speaking, it suffices by a point), the idea of the border would appear as a half-theorization of the problem of the unity and multiplicity of philosophies. It no longer has direct utility when one presupposes that the real precedes philosophical practice. In a non-philosophical practice, the notion of the border is replaced by an axiomatization which renders its usage obsolete.

One of the important objects that could actually permit one such pragmatics, in its relations to the sciences, would be to comprehend the functions of philosophy and ethics in the contemporary practices of the sciences. The habitual schemas presented to us either a philosophy of sciences, or a philosophy, or an ethics of technology. All of which takes place as if both spoke in line with problematics absolutely alien to one another. Thus, one would have to build styles that allow us to capture, under more varied forms, the problems that the sciences pose to philosophy and ethics, without remaining

within this disciplinary divide. Could we model together fragments extracted from sciences, philosophy, and ethics? The pragmatics of philosophies permits it, on condition that one brings forth, through hypotheses, minimal definitions of each in relation to the real.

This pragmatics is not a universal horizon, it does not suppose an indifferent substitution of one philosophical position by another, even though it poses, at the transcendental level, the equivalence of all philosophies – it is a conjecture. At the level of conjunctures, this equivalence has no sense. But then it is no longer possible to believe, for a philosopher, that they comprehend every philosophy according to a kind of universal transparency, no more than it would be possible for a scientist to comprehend all sciences, indeed all of their science. A cogito, possible among others, of this pragmatics could be: "There is at least one philosophy that the philosopher does not comprehend."

Such are the proposed working hypotheses. One is not required to believe or subscribe to them. They form a kind of fiction to comprehend the interactions between philosophy and the sciences or an occasion to explain them.

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