Philosophy from its very beginning and throughout its history has had an intimate and close, an immanent as well as an external relationship to science. It was at the same time a singular kind of relation that proves immediately quite incomparable to the relations philosophy entertained with other forms of practice, for example with art or politics. But the relation between philosophy and science also proved to be as complicated and intricate in nature as all of the other ones were.

A symptomatic expression of its inherent problematicity can be read in some of the questions that emerged repeatedly within philosophy: Can philosophy only defend and affirm itself by becoming a science? Does it need a pledge of scientificity so that it would be equipped with a proper measure to evaluate its own practice? Does it need it in order to be able to distinguish between real philosophy and mere sophistry? Or does it need it to even have a clue about how to immanently distinguish between consistent and inconsistent assumptions and arguments? The question whether philosophy must and cannot be but metaphysics and the connected (somewhat Kantian) question if metaphysics can ever take the proper form of a science is one way of phrasing these concerns. The way out of these alternatives into non-metaphysical thinking was also often paved with scientific bricks.

However, is it evident that philosophy can or even must obey scientific standards, measures, measurements? Is philosophy a science, just a peculiar one? And does this mean that a general theory of science - which thus would not be philosophical in nature - would also entail an account of the role of philosophy in an overall system of science, or would philosophy simply be excluded? What role could it play? These questions still haunt ever growing parts of today's academia in the humanities, where one constantly must be on the scout for new criteria of how to prove the scientific excellence and quantifiable quality of one's research.

But in the history of philosophy thus far, the question about the possible or desired scientificity was not brought about externally. It was either raised by philosophers themselves, frustrated by and bored with the endless speculations and, even worse, fabulations of previous philosophers. Again, the only way out seemed to lie in transforming philosophy into a science of a singular kind. But the question of, or rather, concern with, philosophy's scientific status was also raised by scientists outside of philosophy. For, does it have any value for a scientist to engage and think about philosophy, if it falls outside the realm of the sciences? This may seem to be a purely external criticism of philosophy as such. Yet, the dilemma is more profound. For, if philosophy aspired sometimes to be or become a science, the paradigm of scientificity obviously did not come from philosophy, but from the actual existing
sciences, for a long period of time from mathematics. So, philosophy’s scientific standard, if there is one, according to such a view, originated outside of philosophy but determines philosophy’s own practice. Philosophy is a science if it is like mathematics...only a little different.

But things get more complicated. Plato already famously stated that no one should be allowed to enter the just city who is not a geometer. For today’s eyes and ears this may read and sound odd,—even though mathematics is globally taught in more schools than philosophy is—Plato’s point was not simply that mathematics provides philosophy with a measure of its own practice. Rather, Plato’s point was that scientific education is an education in thinking. Science thinks. And as by thinking one is able to access and bring about truths, the scientific education is absolutely crucial. Not only crucial for the practice of science, nor for the practices of science and philosophy, but also for politics. For, truth is not something individual but constitutively collective: what is true, cannot simply be true for me; it is not up for debate and it is not an opinion. Through mathematics we get acquainted with the very workings of truth, since a mathematical proof is not up for debate and it does not matter if we like it or not – it thus escapes the realm of opinions. To be equipped with experiences of such a practice was for Plato thus crucial for engaging in other, collective practices like politics. In short, no one should be allowed to do collective politics who has not previously experienced what it means to think. And this is inter alia an experience that is generated by science - because we only understand a mathematical proof if we basically could do it ourselves. In Plato’s case, we encounter a philosopher who emphasizes the need for being engaged in scientific practice not for the sake of philosophy but for the sake of politics (and thus for the sake of justice). So, for Plato at least, it seems to be possible that philosophy does not need to become a full-blown science throughout, but it almost certainly needs an appropriate concept of science to be philosophy at all—otherwise it could not declare what the precondition of a proper collective, i.e. just politics, is.

In this sense it may come as no surprise that, according to some accounts, the very emergence of mathematics proved to be a constitutive reason for the emergence of philosophy itself; according to others, as we already highlighted, the history of philosophy is fundamentally made of nothing but the (failed or, at least, repeated) attempts to constitute itself as a science in its own right - one may here think of Kant, in a different manner of Hegel, certainly of Husserl, or even of Marx and certain branches of Marxism. One proponent of such orientation in Marxism is clearly Louis Althusser, who went as far as to grant historical materialism the status of science, equal to the scientific discoveries of mathematics and physics.

But, recently, a new phenomenon is emerging among some scientists. Stephen Hawking declared philosophy to be dead, precisely because it couldn’t keep up with the developments of modern science, and particularly with those of modern physics. Accordingly, scientists have now become the partisans of discoveries, and therefore of new forms of knowledge, thus leaving philosophers behind, without any useful role to play. This position might be not entirely new. In the history of philosophy, we also find positions that are on the other side of the Hawking’s coin. While Hawking is the scientific enemy of philosophy, in the history of philosophy we have philosophical enemies of science. The most notable example is perhaps Heidegger. He was primarily concerned with physics and perhaps it was physics what he meant when he referred to "science." For Heidegger, ever since modernity, knowledge begins by thinking the concepts, rather than by empirical observations. He argues that although nature is a subject to scientific observation, it nonetheless exists in itself, that is to say, it is inaccessible to sciences. His position a propos sciences is best epitomized in his thesis “science does not think.” There is a contradiction, for Heidegger, between its foundation and its meaning. Science cannot account for the reasons of its foundation and cannot give meaning to its existence. To quote Heidegger: “Using physical methods, for example, I cannot say what physics is. What physics is, can only be thought following the manner of the philosophical question.” Which is why it is ultimately the paradigm of something else, namely technology, that came over mankind since Plato and increasingly not only taints but brings into oblivion our proper understanding of nature, that is physics, that is being. Science is essentially technological, and as all technology works as a formation of the object so that the subject can appropriate it and use it as it likes. Science is essentially at the basis not only of our hybris, but of the hidden metaphysical core that drives the totality of the western world almost from its forgotten origins on.

There is also another way of opposing science from within philosophy, that of critical theory, maybe in this sense best epitomized in Adorno’s philosophy. Since, for this strand of thought, science is one of the ultimate expressions of the very economic and political forces that drive a capitalist society. That is to say: science is essentially capitalist—a judgment that comes quite close to that of Heidegger. There is—different from what Althusser believed—no residue of thought in science. It is purely instrumental and all philosophy engaging with the sciences is therefore a priori positivist, in the worst of its political meanings.
The present issue of *Crisis and Critique*, as now many thinkers have done before it, assumes that the times for any overall condemnation of science are over. Yet, the dangers of positivism might re-emerge in a fundamentally new disguise, and thus it is of conceptual, but also of political importance, to investigate the relation between philosophy and science. This relation, as we argued, is not reducible to the possibility of measuring the former by the standards of the latter, or vice versa.

Rather, it is precisely the category of measure – which one is the measure of the other? – that may articulate the difficulty at hand, namely is philosophy determined by science or the other way around? and if so, how may we conceive this determination (is it one “in the last instance”, as Althusser’s expression goes)? The very relation between philosophy and science – if there is one at all – raises profound questions about the practice of both, such as: What is the material status and what are the material effects of scientific knowledge for philosophy? Does philosophy need to integrate, attain, mimic science, its proceedings, and its knowledge in its very own practice? Is science about knowledge after all? And would science, not of knowledge, but of truth, just be another name for philosophy? There are obviously many more questions concerning the concatenation of philosophy and science if one additionally takes into account the current historical conjuncture. For, what is the status of science in capitalism? Is science a necessary instrument and even a precursor for the reproduction and intensified circulation of capital (which may determine the contemporary – emancipatory or regressive, or both – role and function of technology)? Or, what precisely could be the emancipatory, maybe even political potential of science (for example, in terms of the critique of ideology or as that which creates knowledge about ourselves)? Is there a paradigmatic science that philosophy has to be confronted with (mathematics, biology, quantum-physics, to name just a few candidates discussed within the most recent times)?

The present issue of *Crisis and Critique* brought together some of the most influential thinkers who work on the topics we are addressing in this issue. We are fully aware that by this we are being neither comprehensive, nor exhausting the topic. Our aim is to bring together thinkers and philosophers from different orientations, who are preoccupied with the relation, influences, overlapping, mutual determinations, and multiple effects that occur between philosophy and science.

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